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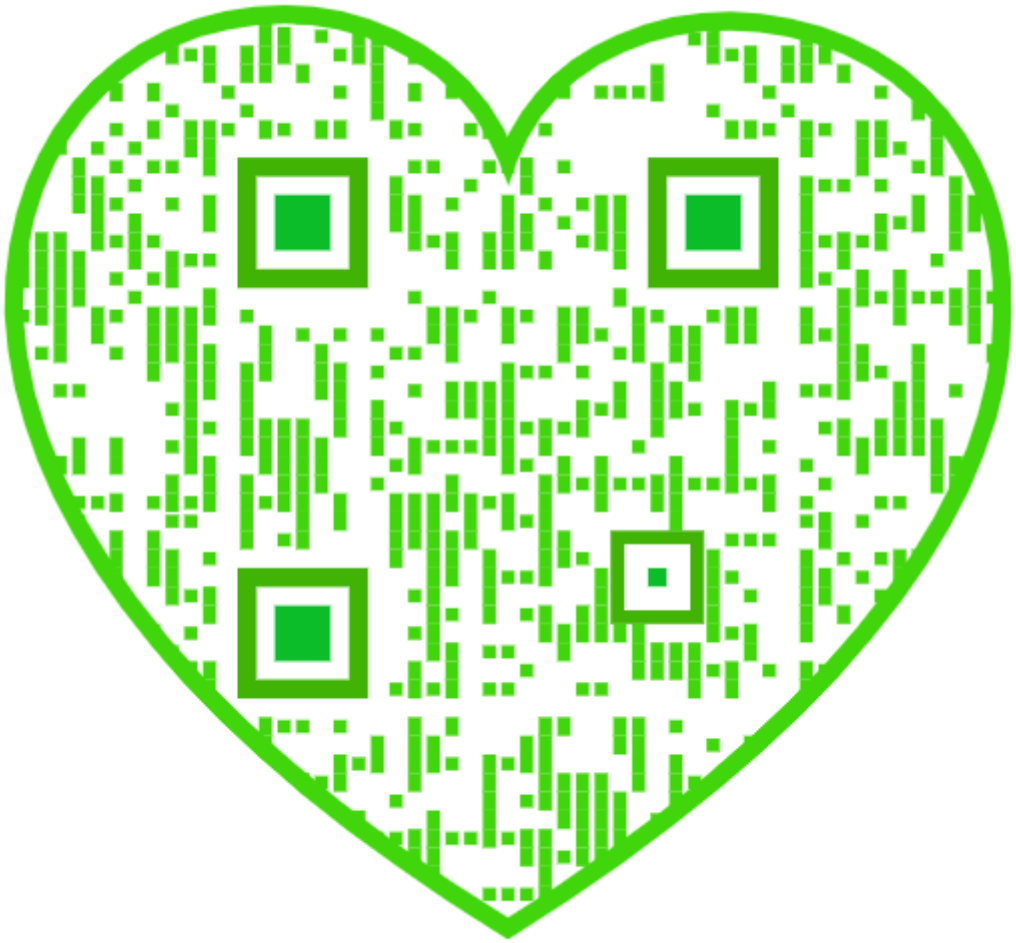

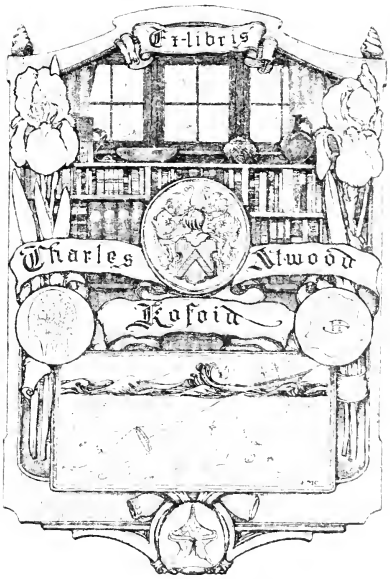
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THE

PRINCIPLES OF DIAGNOSIS.

BY MARSHALL HALL, M.D. F.R.S.

L. AND E. ETC.

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THE

SOURCES OF DIAGNOSIS.

1. THE Diagnosis of Diseases constitutes the first part of the office of the physician in his actual visits to the sick.

2. The Sources of Diagnosis are, the History, the Symptoms, or changes in function, the Effects of Remedies, and the Morbid Anatomy, or changes in structure.

3. The History teaches much of the probable progress of the disease, and of its effect in inducing changes in structure and devastations of the powers of the general system. The Symptoms designate the organ principally affected. The Effects of Remedies, carefully considered, throw an important ray of light upon the nature and force of the disease, and upon the condition and energies of the system. The examination of the changes of structure affords an invaluable confirmation or correction of our previous opinions.

4. The study of the history of the disease greatly aids the diagnosis. The constitutional causes, which involve the hereditary predisposition, previous attacks, &c.; the external causes, which embrace those circumstances which induce and modify the disease; the duration, the past course of the morbid affection, &c. are all events which greatly assist us in forming the diagnosis, and in determining the particular condition of the organ principally affected, and of the general system, in the individual case.

5. But the symptoms doubtless constitute the chief source of the diagnosis. The form and violence of the symptoms, the particular order in which they appear, the particular manner

They are principally seen in the administration of

1. *Blood-letting.*
2. *Purgatives.*
3. *Opiates*
4. *Mercury.*
5. *Digitalis.*
6. *Alcohol.*
7. *Quinine, &c.*

It is the *immediate* effects of *blood-letting* which are chiefly valuable in a diagnostic point of view.

IV. The Changes of Structure are

1. *Febrile.*
2. *Eruptive.*
3. *Inflammatory.*
4. *Congestive.*
5. *Arthritic.*
6. *Rheumatic.*
7. *Scrofulous—Tuberculous.*
8. *Scirrhous.*
9. *Encephaloid.*
10. *Melanotic.*
11. *Dropsical.*
12. *Hæmorrhagic, &c.*

9. The observation of the history, symptoms, and effects of remedies, is strictly *clinical*, and can alone be beneficial to our *immediate* patient. The examination of the morbid anatomy may be viewed as the proper *corrective* of our clinical opinions, whilst it contributes, more than any other species of investigation, to the advancement and exactness of the *science* of medicine.

10. The true value and importance of the history and symptoms of diseases, and of morbid anatomy, depend *alike* on a due and correct *association*. The most perfect knowledge of symptoms would be utterly useless, unless considered as signs and indices of the internal disease; and the most perfect know-

ledge of morbid anatomy would be inefficient, unless we were enabled by the symptoms to ascertain it existence in the living body. Our object, in both those studies, ought, therefore, to be to make them useful by the establishment of distinct associations of the symptom or the sign, and of the morbid state as the thing signified. It is in this manner only that the diagnosis and identification of diseases in the actual practice of physic will become more and more correct and complete.

11. The objects embraced in the history and symptoms of diseases are certainly more transitory and less palpable, and require more caution and reserve in the association as effects of diseases, than those of morbid anatomy. But, from the observation just made, that it is only by association of the morbid anatomy with symptoms indicative of the morbid change, that even this becomes cognizable in the living body and useful in the *practice* of medicine, it is plain that the same difficulties apply in fact to both.

12. The study of the history and symptoms of diseases embraces an object unconnected with morbid anatomy, viz. such instances of morbid affection as consist in derangement of function and leave no trace under the scalpel of the anatomist.* And it is one of the objects of the history of diseases especially, to trace the *transitions*, in mixed cases, of deranged function into deranged structure, the *extensions* of diseases of structure from one organ or part to another, and the *superinductions*, from accident or natural consequence, of one disease upon another. It is a point of great importance, but of great difficulty, in the study of the history and symptoms of diseases, to determine the *times* of these transitions and extensions of disease.

13. It is an object of the history and symptoms of diseases to ascertain, in the coincidence of different morbid affections, whether their co-existence be accidental, or the result of their mutual relation as *cause and effect*.

14. Such is an imperfect sketch of the objects and relations

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* See Baillie's Morbid Anatomy, *Pref.* p. 1.

of this department of medical science. It would be wrong to argue against the importance of the study of the history and symptoms of diseases from the imperfect manner in which they have hitherto been treated; whilst to consider perfection in this study to be *unattainable* would be to suppose that medicine cannot exist as a safe and useful art. It would be wiser and truer to say, that, hitherto, we have been too apt to form and to state our opinions, and to regulate our practice, on *insufficient evidence;* and then to turn our attention to the real nature of the evidence for facts in medical science, and especially in clinical medicine, and to inquire whether its sources may not be multiplied, and its results rendered more sure and conclusive.

15. It is in this way alone that we can hope to remove from the practice of medicine the reproach of vacillation and uncertainty, and contradiction. The *first* step is clearly to distinguish and to identify the disease; the *second*, to appropriate the remedy, in its purity and simplicity, and with a due attention to the strength and constitution of the patient. When *experiments* have thus been carefully instituted, and the results collected by an assiduous *observation*, we may expect to become acquainted with the real effects of those agents which we consider as remedies,—both good and bad. An investigation conducted in this spirit would, I feel convinced, lead to some important results. We still want an essay on *the morbid effects of remedies*,—1. when misapplied, 2. when even appropriately, but perhaps injudiciously, administered, and 3, from idiosyncracy. I may instance blood-letting, and purging, and opium, as productive of morbific effects of the most serious character, to which my attention has been particularly directed: it is needless to add to the list, mercury, digitalis, cantharides, &c., with which every practitioner has learnt to associate certain morbid conditions of the system. But this subject will be more particularly noticed in the succeeding volume of this work. I shall now proceed briefly to notice the advantages which result from each of the departments of the present volume more distinctly.

16. The principal circumstances more particularly em-

braced by the history of diseases, are, the cause,—the progress, the stage,—the effect of remedies,—the season of the year, the prevalency of epidemics,—the constitution, and habits, and previous diseases of the patient, &c.

17. The principal subject in the *history* of diseases, in a diagnostic point of view, is its congruity or incongruity with the supposed disease. We frequently arrive at a negative result, especially, by observing such incongruity in the history, and in this manner, by excluding certain diseases, we narrow the sphere of our inquiries, and have our attention upon a less numerous class of objects.

18. In the study of the *symptoms*, *every* circumstance which can become the subject of observation, and which is at all characteristic, must be considered as important. It is with this view that I have carefully examined the *countenance* and the *attitude* of patients, as well as those other points which are more usually considered amongst the class of symptoms. The attempt to analyze, distinguish, and describe all the external appearances of disease, cannot fail to assist the clinical student and the young practitioner, whilst it serves only to recall to the mind of the experienced, those sources of evidence on which his judgments have been ever, though perhaps unconsciously, founded. For without having undertaken any distinct analysis of the general appearances in disease, the experienced physician has, notwithstanding, been struck with them in the coup-d'œil he has taken of these appearances, and of the general manner of the patient. By these means he has recognised and identified the affection, when he may have been almost unconscious of the sources from which his discrimination flowed.

19. The countenance of the patient, although a source of information too much neglected by writers on medicine, is very peculiar and highly characteristic in many diseases, and affords to the physician of experience and observation an important means of diagnosis. The kind, the stage, the changes, the mitigation, and the progress of many morbid affections, are accompanied and denoted by corresponding states of the countenance. Let us recall to mind the varied and distinctive ap-

pearances in the different kinds and stages of fever, in affections of the head, of the thorax, and of the heart; in inflammation in the abdomen, and in colic, and other affections accompanied by spasmodic pain; in icterus and in chlorosis, and that class of morbid affections which, originating in derangements of the digestion, are accompanied by changes of complexion so characteristic of the original disorder. It is impossible not to be impressed with the importance of changes in the countenance so observable, so diversified, and so diagnostic, with a view to every practical purpose in the art of medicine.

20. Hippocrates,* and Celsus,† and other ancient writers, have, in their great attention to the study of symptoms, paid particular regard to the appearances of the countenance. Celsus observes, "medicus neque in tenebris, neque a capite ægri debet residere; sed illustri loco adversus eum, ut omnes notas, ex *vultu* quoque cubantis, perspiciat."‡

21. These observations are equally applicable to the subject of the attitude and motions of the body in general, in different diseases; for, although the attitude, in certain diseases, is so remarkable as absolutely to have challenged observation, yet, in general, this point has been too little noticed, and its indications too little explored. Hippocrates§ and Celsus‖ have particularly noticed the attitude of patients.

22. It is useful to examine the state of the *hands* and *feet* of the patient, in connection with that of the *general surface*. But it is not my intention to enumerate all the subjects of the following pages in this place. I proceed, therefore, to notice in a cursory manner some points rather connected with the investigation of the symptoms of diseases, than forming a part of them.

23. It is proposed, in the first place, to make each particular symptom the object of distinct and separate inquiry, and, considering it as a general phenomenon occurring under numerous and different circumstances of disease, to investigate, dis-

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* Vide Προγνωστικον. † Lib. 2, cap. 2, 6.
‡ Lib. 3, cap. 6. § Vide Προγνωστικον. ‖ Lib. 2, cap. 3, 4, 6.

tinguish, and arrange its *varieties, modifications, and peculiarities*, in each.

24. It is insufficient to give to a particular symptom a particular name, and notice its occurrence in particular diseases; it is necessary to describe each symptom in general, and to distinguish each modification and peculiarity of it in particular. Dyspnœa is noticed as a symptom of inflammation within the chest, of hydrothorax, of asthma; but how widely different is the dyspnœa of pneumonia from that of asthma—how distinct the difficulty of breathing in asthma from the dyspnœa of hydrothorax, and from that of the numerous other affections in which this symptom is observed! How desirable, then, must it be to seize and describe these distinctions, and make the application of them to the discrimination of diseases!

25. It can seldom be said that any particular symptoms of disease are truly pathognomonic; but the *kind* and character of the symptom are frequently so. To ascertain, therefore, the form of each symptom as peculiar to different diseases, would be to establish that system of pathognomonics so much desired by the more ancient physicians.*

26. The varieties and modifications in the form of symptoms must be traced too, *in immediate reference to particular instances of disease.* Much has been written on the different states of the pulse; and numerous artificial divisions of this symptom have been formed; but in general this has been done in too *abstract* a manner. To study the pulse to any practical purpose, it should be constantly considered in relation to some individual disease, its character noticed, its changes traced, and its indications ascertained. Every thing must be as little general and as little abstract as possible.

27. A proper and full *arrangement* of the symptoms and their varieties must be of great importance in the investigation and identification of diseases. Some *symptoms* have been considered as real *diseases*, and it must be absolutely necessary to draw just distinctions between them with a view to their cure. A similar arrangement and discrimination of the *varieties* of

* Cullen, Nosologia Methodica, p. vii.

each symptom are of essential importance to the diagnosis, and of greater moment in this place, because the investigation has been hitherto pursued in a very partial and inadequate degree. Dyspnœa, icterus, hydrops, &c. must be distinguished, as symptoms merely, from real diseases, and each form and variety of these affections must be carefully distinguished from the rest, and accurately associated with its particular cause.

28. There are also some other circumstances which claim our attention. The particular *combination* of symptoms, and the influence of one symptom in inducing and modifying the others, are observed to be characteristic of certain affections and stages of disease.

29. In our clinical visits, we naturally resort to the principles of *analysis* and *synthesis*, in order, first, to seize some particular points, such as several prominent and important symptoms, from which we proceed, in the second place, to collect such other symptoms as usually concur and complete the character of the disease we have in view. We are thus confirmed or corrected in our opinions by the *congruity* or *incongruity* of the several parts; we perceive that the disease is simple or that it is complicated; and we trace its progress in itself, or its extension, and involution of other diseases, or of parts of the system not originally affected. It is, indeed, comparatively easy to observe and describe symptoms, or appearances in morbid anatomy, abstractedly; the task of difficulty, as well as of utility, is the proper and just association of them as signs and diseases.

30. Some symptoms are not only incongruous but *incompatible*, and by a careful and patient *observation* we often satisfy ourselves on a point which we could not decide by any *inquiries*. When a patient has complained of pain of the side for instance, and it has been doubtful whether the pain were inflammatory, a spontaneous sigh has decided the question. In the same manner writhing of the body is unusual if not incompatible with inflammation. At least, although, as Celsus observes, "vix ulla perpetua præcepta medicinalis ars recipit," these circumstances afford great assistance in the investigation of diseases. We are thus frequently enabled to circumscribe

our inquiries by ascertaining what the disease *is not*, before we have actually discovered what it *is*.

31. But without entering so minutely and carefully into this subject, there is something in the *coup-d'œil*, or general sum of appearances, which is of great utility to the experienced physician. There is in practical medicine a circumstance of the first importance, the *recognition of a disease*. The general appearance of the patient, the peculiar modification, the particular combination, and the mutual influence of the symptoms, give a *general* character to the whole disease, which is recognised and *felt* by the physician of experience and observation.

32. Accurately to discriminate the symptoms of diseases, and their various forms, is to apply to the objects of clinical medicine the principle of *analysis;* and accurately to describe them, will be to render the knowledge of them and of medical experience in general more *communicable* to others. It has long been remarked and regretted that practical knowledge in medicine is peculiar in this respect,—that it cannot be taught, and that the precious fruits of experience necessarily die with their possessors.* How unfortunately true this remark is to a certain extent, must be universally acknowledged. And from this admission, the importance of devising the means of rendering medical knowledge more capable of being imparted from one person to another, is sufficiently manifest. Now it has appeared to me that the difficulty in effecting this object may be in some degree obviated. On considering the nature of experience in medicine, it is plain that it consists, in a great measure, in an acquired capacity for receiving and acting on general impressions induced in the mind by the repeated contemplation of disease. The inexperienced practitioner is incapable of receiving these general impressions; the experienced are, in general, incapable of explaining them. Is it not, however, probable that, by presenting to the young clinical student an *analysis* of those general impressions which con-

* See Pearson on Cancer, *Pref.* p. vi. · Ουτε τεχνη, ουτε σοφιη αφικτον, ει μη μαθητις. ΔΗΜΟΚΡΑΤ. ΦΙΛΟΣΟΦ.

stitute the object of experience, he may be very materially assisted, and that experience may not only thus become more communicable, but that the young practitioner may thus also sooner become experienced, and earlier capable of acting on similar general impressions? If this be true, such an analysis of the general impressions of experience must prove highly useful. But such an analysis implies the observation and detail of every particular constituting the general sum of morbid appearances,—the enumeration and description of every phenomenon which can be presented to the observation of the physician.

33. It is true this *general* view of disease is *inadequate* to the purposes of practice; it is, however, of great assistance and utility; and the most experienced must not rest satisfied with his general knowledge, but must make the most *particular* inquiries, in the case of *each individual* patient; "etiam vetustissimus auctor Hippocrates dixit, mederi oportere et communia *et propria* intuentem."* The general impression in question is chiefly useful by contracting the circle of our inquiries, and by leading us nearer that centre which consists in the individual case before us. It is especially useful in Dispensary practice, in which many patients must be seen in a short time, and in which there is not, consequently, sufficient opportunity for entering fully into particulars.

34. In conclusion, I may remark, that the objects of the history and symptoms of diseases may be divided into those of *observation* and those of *inquiry* on the part of the physician: the former are the more satisfactory; the results of inquiries are apt to partake of the vagueness and incorrectness of the answers of the patient. In conducting these inquiries, we ought to be careful not to put *leading questions*, and not to receive the replies implicitly, but to try their truth by ascertaining their congruity or incongruity with the character and history.

35. I must now revert briefly to that source of diagnosis

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* Celsi, *Præf*, lib. i.

which is afforded us in the effects of remedies. It chiefly refers to the effects of blood-letting, and consists in the fact, that inflammatory affections of the serous membranes and parenchymatous substance of organs induce great tolerance of loss of blood, in the perfectly erect position. The institution of blood-letting in this position affords therefore a diagnosis of acute diseases of the utmost moment. But the subject will come to be noticed more at length in its proper place.

36. The morbid anatomy will also come to be briefly treated of at the conclusion of the present volume.

37. I may remark, finally, that the matter of the second volume is of so much more practical interest than that of the present one, which may be viewed as merely preliminary, that I have curtailed this in order that I might give fuller details upon subjects of greater moment and more immediate value in actual practice. I wish, however, the characteristic of my work throughout to be brevity in statement, with fulness in the collection and arrangement of facts useful to the practitioner.

SECTION I.

THE HISTORY OF DISEASES.

38. The principal objects in the history of diseases, are, *their causes, and their course.* I do not propose to enter into details upon these subjects, which will be found in the second volume, but, supposing them known, to point out some of their *practical applications.*

39. It is of the utmost importance to observe the causes of prevailing *epidemics,*—as contagion,—season of the year,—state of the weather, &c.—and of *endemics,* as marsh effluvia, peculiarity of situation,—prevailing occupations, &c. It is important to know what we may *expect,* in our visits to the sick.

40. The influence of local situation in inducing *Typhus, Intermittent Fever, Dysentery, Phthisis Pulmonalis, Bronchocele, Calculus, &c.* is now well understood; the effect of sedentary occupations is to lead to the different forms of the *Dyspepsiæ. Typhus* is frequently observed in new-comers into crowded cities;* and *Intermittents,* in the visitants or inhabitants of marshy districts. There seems to be good reason for supposing that where intermittents prevail, *Phthisis* is less frequent in its occurrence.† *Calculus* is less observed in

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* Louis, Recherches de Gastro-entérite; t. ii, p. 452. Andral, Clinique Medicale; ed. 2, t. iii, p. 448.

† Trans. for the Improvement of Med. and Surg. Knowledge; vol. iii, p. 471.

sailors than in persons residing on shore.* It cannot be doubted that the careful observation of these external causes, and of their effects, must contribute materially to a knowledge of the diagnosis of diseases and of their various forms.

41. The next class of causes, which I shall briefly notice, are those of the *habits* and of the *constitution* of the patient. The habits of the patient relate chiefly to his occupation, and are sedentary or active, and to his mode of living with regard to diet, wine, &c. It has already been observed that sedentary persons are subject to the *Dyspepsiæ;* those who eat and drink freely are, of course, exposed to diseases of fulness, as *Apoplexy;* whilst the spirit-drinker is exposed, on one hand, to attacks of the *Delirium Tremens*, or, on the other, to the slower inroads of *Organic Disease of the Liver*, *Dropsies*, *Purpura*, *&c.*

42. The constitutional causes are chiefly those of the form, and of hereditary tendency or taint. The tendency to *Apoplexy*, to *Phthisis*, to *Gout*, and even to *Calculus* and *Gall-stones*, is sufficient to illustrate the present subject. Nor can it be doubted that a careful inquiry into these points must materially conduce both to the prognosis and to the diagnosis of these morbid affections.

43. In some diseases, however, both the character and prognosis are apt to be modified by complication, or by changes in the original affection. *Typhus* and other fevers are apt, from a simple form, to become complicated by some local organic affection. The *Dyspepsiæ* are particularly apt to have their most prominent symptoms removed from one organ to another.

44. It is a point of great interest and importance to study the *early* history of *insidious* diseases, in order to prevent errors in the diagnosis and prognosis. It is of still higher importance to trace with accuracy the *previous* history of *sudden* and *impending* diseases, in order that we may, if possible, prevent them.

45. In other diseases, as *Inflammation*, and especially *Or-*

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* Medico-Chirurgical Transactions.

ganic Diseases, the course is comparatively more regular and uniform.

46. The course of *Mesenteric Disease* is perhaps the slowest, and most regular progressive, of all diseases eventually fatal; it usually occupies a space of from three to five years.

47. In many diseases it is necessary to watch the course or *extension* of the primary disease, as it involves different organs. It is a point, perhaps, of still greater interest, to trace the gradual superinduction of *organic disease* in cases originally consisting in derangement of function. True *Asthma* may lead to *disease of the heart*. *Protracted Dyspepsia* is, after excess in spirits, the most frequent cause of *hepatic disease*.

48. There is a point in the history of diseases which still requires attention; viz. what has been termed the *metastasis* or *conversion* of diseases. This event has occurred in *Gout*, *Rheumatism*, *Erysipelas*, *Cynanche Parotidea*, some *Cutaneous Affections*, *Suppressed Hæmorrhoids*,* &c. But I think some of the events of the morbid affections which accompany the Dyspepsiæ, have been mistaken for *metastases* of diseases; and some of the effects of the *treatment*, as will be noticed immediately, are very apt to be mistaken for changes or consequences of the disease.

49. Various diseases are apt to succeed to each other from originating in one common cause: *Phthisis* is apt to follow *Fistula ani*; *syphilitic* and *syphiloid* affections variously succeed to each other.

50. The study of the history of diseases is of essential service in Dispensary practice, in which, from the considerable number of patients seen in a limited time, a prompt diagnosis is required. The following *rules* will be found extremely useful to the young physician on such occasions. It is only, however, as an *approximation* to the diagnosis, that such rules can be attempted. It will still be necessary to inquire into the *particulars* of the *individual case*.

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* See the Edinburgh Journal, vol. xv, p. 106.

51. *The first question* to be asked of the patient is, 'how long he has been ill.' The reply resolves the case into the *Class of Acute*, or of *Chronic Affections*. The former are principally *Fevers*, the *Acute Dyspepsiæ*, or *Acute Inflammations;* the latter are the *Chronic Dyspepsiæ*, the *Insidious Organic Diseases*, or the *Insidious forms of Inflammation*,—especially of the *Brain*, the *Pleura*, and the *Peritonæum*.

52. Having thus ascertained the *class* of the disease, we must proceed, in the case of the *Acute*, to investigate the individual nature of the case. In *Chronic* affections we may ask—

53. *In the second place*, 'whether there be a material and progressive loss of flesh.'

54. The reply to this inquiry divides the cases into such as may subsist without influencing the nutrition, and such as gradually reduce the patient. The former cases are chiefly the chronic and protracted forms of *Dyspepsia*, or diseases of such organs as are not engaged in the process of assimilation. The latter are *Marasmus*, *Phthisis*, *Mesenteric Disease*, *Chronic Inflammation of the Peritonæum*, and, in general, diseases of the 'organs of supply.'

55. *A third inquiry* is into the state of the pulse. Increased frequency of the pulse is the usual attendant on the *Insidious forms of Organic Disease*, whilst it is not observed in the less serious cases of the *Chronic Dyspepsiæ*.

56. *Other questions* are, 'what is the seat of pain or uneasiness?'—'what are the functions disordered?'

57. It is needless to enter more minutely into the subject, as it would be only repeating the observations, to be detailed forthwith, on the general aspect of the patient, and the general character and course of the disease.

SECTION II.

THE SYMPTOMS OF DISEASES.

CHAPTER I.

THE MORBID APPEARANCES OF THE COUNTENANCE.

58. The particular circumstances embraced in an examination of the morbid states of the countenance, are the changes induced in the *cuticular surface, the cutaneous circulation, the cellular substance, the muscular system, some particular features, and the general expression.*

59. The cuticular surface is morbidly affected in some long-continued disorders, chiefly of the digestion, especially round the eye and the mouth, giving a peculiar appearance to the *complexion.*

60. But the complexion, as well as the surface of the countenance, is principally affected by the condition of the cutaneous circulation; on this depend chiefly the state of pallor or flushing, and of the sallow and icterode hues of the complexion observed in some disorders,—the state of tumidity or shrinking,—of heat or coldness,—of dryness or moisture, or cutaneous exudation.

61. The state of *emaciation*, so important to observe and trace in chronic diseases, depends on the loss of cellular and muscular substance, and must be always distinguished from mere vascular shrinking.

62. The muscular system is principally affected by diseases attended with pain, languor, or paralysis.

63. Amongst the particular features, it is of moment to observe the eye, the prolabia,—the brow, the nostrils, the lips, &c. The eye, in particular, affords the opportunity of judging of the degree in which the serum is loaded with bile, in cases of icterus, and of distinguishing that disease from those morbid affections in which the complexion becomes sallow and icterode from the state of the cuticle and cutaneous circulation. The state of the prolabia affords an index of other states of the blood,—as of a too serous condition, or of a defective arterialization. The nostrils, carefully observed, denote the condition of the respiration.

64. Of the general expression of the countenance I shall rarely venture to speak. It affords an important and essential source of information in Dispensary practice, § 50, and assists the experienced physician in discerning the nature of the disease where the superficial observer sees only the general look of indisposition.

65. The morbid condition of the cuticular surface § 59, and of the cutaneous circulation, § 60, are accompanied with peculiar affections of the *hands*, and of the *general surface*, and of the *tongue*. These associations it will be my object to trace in the subsequent pages. I now proceed to describe the appearances of the countenance in reference to particular diseases; I have already stated, § 26, that it is with such reference alone that the knowledge of symptoms becomes of *practical* utility.

66. In the *Acute Synochus* there is a diffused, vivid flushing of the countenance, frequently with considerable turgidity, especially in the young and sanguineous, the tunica albuginea is apt to be suffused, and there is great febrile heat. There are also general anxiety,—tremor of the lips in speaking,—and a rapid movement of the nostrils from hurry in the respiration. The tumidity diminishes as the fever runs its course, and either declines or assumes the slow and protracted character.

67. In the *Acute Inflammation*, especially of the serous membranes, or parenchymatous substance, the countenance has a very different aspect, which it is important to observe, especially in a diagnostic point of view. The heat, turgidity,

and flushing, the suffusion of the eyes, the tremor of the lips, and the *hurried* movement of the nostrils, are absent, whilst the surface is frequently affected with perspiration. There is also usually an appearance peculiar to the primary disease.

68. From the state of countenance described § 66, the transition is often imperceptible to that observed in the *Protracted Synochus;* sometimes, on the contrary, the appearances of this febrile affection come on insensibly from similar causes, without being preceded by the acute form. Instead of tumidity and suffusion, there are shrinking, partial flushing of the cheeks only, emaciation, and frequently a pallid and sallow hue; the cheeks become fallen, and the malæ, maxillæ, and other bony parts, appear prominent; the surface becomes dry, and rough; the lips, like the tongue, are dry and tremulous, and not moved with the usual freedom in articulation; the teeth are frequently somewhat affected with sordes or mucus.

69. In *Chronic Inflammation* the appearances are peculiar. There is a characteristic expression of disease which strikes the common observer, and, still more, the experienced physician; the surface and complexion are cool and pale, or affected with transient or partial heat and flushing, usually without sallowness, frequently with slight lividity, sometimes with cool moisture; there are emaciation and shrinking, the cheeks falling in, the action of the muscles becoming apparent, and the skin forming into greater or smaller folds. These appearances of the countenance are, however, greatly modified by the nature and seat of the original disease, as will be particularly noticed hereafter.

70. In the *milder* form of *Typhus* the countenance is equally unattended by deep flushing and tumidity, or with shrinking; but it is highly characterized by an expression of languor, feebleness, anxiety, and indisposition, and by tremor observed in the lips and on speaking; the eyes are frequently suffused; the cheeks slightly flushed; the surface affected with a moderate degree of warmth.*

71. In the *severe* forms of *Typhus* the countenance is mark-

* See Currie's Medical Reports, vol. i, p. 12; Bateman on Contagious Fever, p. 28, &c.

ed by great debility and tremulousness of the muscles, and by great shrinking; the bones are more prominent, the intervening spaces more sunk and depressed than natural; the surface is sometimes slightly flushed, and sometimes cool and clammy. The eye-lids are frequently partly closed, and the eyes suffused, dull, and covered with a film of mucus; the mouth is apt to be partly open, the teeth and lips affected with dark-colored glutinous sordes; the articulation is difficult and imperfect, and attended with great effort, and with tremor and an inadequate action of the lips and of the tongue, which is put out with tremor and difficulty. There is often superadded the appearance of delirium, or of coma,—of congestion,—or of collapse or sinking.

72. The countenance in *Continued Fevers* is liable to receive a modification from their complication with a morbid affection of the head, the viscera of the thorax, or of the abdomen, the detection of which is amongst the most important objects in the study of these diseases.

73. The different stages of *Intermittent Fever* are attended by peculiar states of the countenance, and especially of the cutaneous circulation. In the *cold stage* there are shrinking and paleness,—pale lividity of the prolabia,—trembling of the lips and maxillæ: in the *hot stage* there are heat, flushing, and tumidity, and suffusion of the eyes, and the features are restored from their collapsed condition: in the *sweating stage*, the surface, complexion, and heat, become more natural, whilst there is greater or less perspiration. In the *interval* there are, at first, languor and slight paleness,—after a time, paleness, shrinking, and emaciation.

74. The different *Fevers* are so varied in themselves, and so various in their different stages, and in different individuals, ages, and habits, that the countenance, together with the symptoms of the disease, must necessarily be much diversified. But of all the diagnostics of the different Fevers, and of all the indications of their *progress*, *stages*, and *changes*, none is more distinctive and characteristic than the appearance of the countenance. From this source the diagnosis and prognosis of Fevers equally flow, and it cannot, therefore, be too strongly

recommended to the attention of the clinical student and young practitioner.

75. The same remark may be extended to some of the *Eruptive Fevers*, in which there is, exclusively of the rash, a characteristic modification of the features.

76. In *Rubeola* the eye-lids are frequently red and swollen, and the eyes injected, *before* the appearance of the rash, and there is usually catarrhal affection; the rash *begins* in spots on the face; and there are sneezing, intolerance of light, &c.

77. In *Scarlatina* the rash becomes more general and less interrupted, and it is accompanied with more general tumidity and fulness; there is frequently an appearance of fulness about the throat, and the voice is affected; but the symptoms of catarrh are usually absent.

78. I now proceed to notice some morbid appearances, chiefly of the *complexion*, which appear to me not to have obtained hitherto the degree of attention which they deserve.

79. The appearances to which I allude occur in the very varied forms of disorder of the digestion, or *Dyspepsia*, of which I have treated in another work, the especial object of which was accurately to trace their distinctive characters, as seen in the countenance, the tongue, the hand, &c.

80. The most severe or *Acute form* of this affection is accompanied with some paleness and sallowness, and a dark hue about the eye; the cutaneous vessels exude a little oily perspiration; the prolabia are slightly pale and livid; the muscles of the face, and especially of the chin and lips, are affected with a degree of tremor, particularly on any hurry or surprise, or on speaking. With this state of the countenance there are *conjoined* peculiar morbid states of the tongue, and of the hands, which will be described in their proper place.

81. A state of sallowness of complexion, unaccompanied with the appearances just described, usually attends the more *Chronic form* of this affection, denominated *Dyspepsia*.

82. The next variety of this morbid affection is that which is usually denominated *Chlorosis*, of which I have described three stages. The *incipient stage* is denoted by paleness of the complexion, an exanguious state of the prolabia, a slight

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82. The next variety of this morbid affection is that which is usually denominated *Chlorosis*, of which I have described three stages. The *incipient stage* is denoted by paleness of the complexion, an exanguious state of the prolabia, a slight

appearance of tumidity of the countenance in general, and of puffiness of the eye-lids, especially the upper one. There is sometimes superadded a tinge of green, or yellow, or of lead-color, and frequently darkness of the eye-lids. In the *confirmed stage* the countenance is still more pallid, the prolabia and the gums exanguious, or the prolabia, and especially the upper one, have a slight lilac hue, and the integuments in general are puffy and tumid. In the *inveterate stage* these appearances are gradually modified by the supervention of emaciation, or œdema. With each of these stages is associated a peculiar state of the tongue and general surface. These appearances in the different stages of Chlorosis seem to depend partly on the state of the cutaneous capillary vessels, and partly on the state of the blood itself; at least, this fluid has become, in some instances, so serous as scarcely to tinge the linen as it has dropped from the nose.

83. In the *more chronic form* of this morbid affection, to which the epithet *decolor* is very applicable, there is a state of sallowness, of yellowish or *icterode* hue, of darkness or of lead-color, of a squalid or sordid paleness of complexion, or a ring of darkness occupying the eye-lids, and extending a little, perhaps, towards the temples and cheeks, and sometimes encircling the mouth. There is, in this form of the affection, little or no tumidity, pallidness of the prolabia, or tendency to œdema; and the *tunica albuginea* of the eye is free from the tinge of icterus. This morbid state of the complexion appears, indeed, to depend principally on the condition of the cutaneous surface of the countenance. The tongue is apt to be affected chiefly in the *form* of its surface only, in a peculiar manner, to be described hereafter; and the general surface of the body is apt to be more or less affected in the same manner as that of the countenance.

84. From this *icterode* appearance of the complexion it is important to distinguish the different shades of *Icterus* itself: in this disease the tunica albuginea are tinged proportionately to the general surface; and it is in this manner that these two morbid affections are discriminated. The term Icterus is merely expressive of a *symptom* of disease, although it is daily

named and has long been arranged as a distinct *disease.* The shade varies from yellow to green or blackish. But the most important and only *practical* distinction with regard to Icterus, is that of its *causes,* or of the *primary disease;* the principal of these are—1. *constipation, or loaded bowels;* 2. *acute disorder of the digestive functions;* 3. *diseases of the liver;* 4. *gall-stones;* 5. *hydatids in the gall-ducts;* 6. *organic tumors in the abdomen, situated near the biliary ducts;* 7. *the pregnant uterus;* 8. *diseases of the right kidney;* 9. *or even of the right lung, or cavity of the pleura.*

85. Besides the morbid affections of the complexion already mentioned, there are others consisting in different shades of *lividity,* and depending principally on a languid circulation, on a defective arterialization, or on a venous fulness of the blood.

86. In some cases of *Acute Dyspepsia,* § 81, there is a remarkable tendency to a livid hue of the prolabia, nose, and cheeks, as well as of the hands, accompanied with coldness and apparently dependent on languor in the cutaneous circulation.

87. A similar state of lividity, but frequently much greater in degree, is observed in cases of *Tuberculous Disease of the Mesentery,* attended with great tendency to coldness and great sensibility to external cold.

88. A degree of lividity in the prolabia is frequently, though not universally, observed in *Phthisis Pulmonalis.* This appearance seems to depend on the *part* and on the *extent* of the pulmonary structure involved in the tuberculous disease, and on a defective arterialization, as well as a languid cutaneous circulation of the blood.

89. Besides the diseases attended with lividity of the countenance already mentioned, this appearance occurs for the most part together with tumidity, in cases in which the brain, the lungs, and the heart, are severally oppressed, in *Apoplexy,* in *Pneumonia,* and in some diseases of the principal organ of the circulation. The appearances in these diseases will be noticed immediately.

90. In the attack of *Apoplexy* there is usually, at first, general tumidity, flushing and lividity of the countenance;

the pupils are contracted, then dilated and often unequal; the features frequently lose their symmetry, those of one side of the face being unusually acute, while those of the other are relaxed; and the whole countenance is drawn, or the expression lost in coma. At a subsequent period, the countenance becomes pale, fallen, cold, and often variously distorted. Heberden observes, "apoplectici, qui prope absunt a morte, in spirando ambas buccas inflare solent;" and indeed the oppressed state of the respiration always adds a characteristic appearance to the countenance: the pupils are dilated, perhaps unequal, or irregular in form; the eye dull and flaccid; the jaw frequently falls, the saliva flows, the lips are pale, and the mouth is foul. A similar state of the countenance to that last described sometimes exists from the beginning in cases of what has been termed the serous and nervous forms of apoplexy.

91. *Paralysis* is a usual concomitant or consequence of Apoplexy. The effects of cerebral Paralysis on the countenance are very various: the muscles of one side of the face fall into a state of relaxation, whilst those of the opposite side are unusually contracted from want of power in their antagonists; the forehead is often unequally affected by wrinkles, the eye-brow of one side falls down, the eye-lids do not open or close so readily as usual, or the eyes are not converged on the same object; one nostril, one angle of the mouth, and one cheek fall, whilst the others are unusually drawn, especially on speaking; the tongue is frequently protruded awry, and with difficulty; the articulation is indistinct, and some particular letters, especially the labials, as *b* or *p*, cannot be pronounced. Deglutition is also sometimes affected, and there is a danger of choaking; frequently mastication is impeded by the collection of the bolus of food into one side of the mouth; sometimes the saliva flows out of that angle of the mouth which is now become the lower one. There is frequently a difficulty in shaving, from the torpor of the skin, and the loss of power in the muscles which in health put it upon the stretch.

92. The countenance in *Epileptic Coma* has sometimes the deep suffusion observed in apoplexy, but it preserves its sym-

metry; the lip or tongue is liable to be bitten and wounded, and there is then frequently a bloody foam in the mouth, a point of great importance in the diagnosis.

93. The countenance in *Deep Intoxication* is at first bloated and suffused, then pallid and sunk; the muscular power is defective, the expression lost, the articulation indistinct, and the saliva flows from the mouth; the sensibility is impaired or lost; the breath tainted with the intoxicating liquor.

94. *Hysteric Stupor* is distinguished by the absence of the suffusion, distortion, and loss of character, observed in apoplexy.

95. *Syncope* is characterized by pallor, coldness, cold perspiration, pale lividity, shrinking, and collapse of the integuments and features,—appearances which do but *concur* in the *commencement* of any other morbid affection.

96. In *Inflammation of the Brain* there is at first an expression of pain or uneasiness manifested usually by knitting of the eye-brows,—with delirium or coma: afterwards the pupils, from being contracted, become dilated; there are strabismuth, grinding of the teeth, spasms or distortions of the muscles of the face, &c. with profound coma, and without the appearances observed in idiopathic fever.

97. In *Pleuritis* the degree of the pain is marked by a proportionate contraction of the features in general, and by acuteness and elevation of the alæ nasi; the nostrils are moved and dilated by the alternate acts of the respiration; there is sometimes a degree of vivid flushing, terminating abruptly and bounded by whiteness towards the nose; the heat is inconsiderable, and there is frequently perspiration.

98. In *Pneumonia* there is less contraction of the features, but there is greater appearance of dyspnœa, very important to be observed in this disease, and the nostrils are widely dilated before each inspiration; there is little heat, but frequently a degree of perspiration.

99. In *Inflammation of the Chest with clogged Bronchia or Air-cells*, there is usually a general and deep suffusion of the countenance, sometimes amounting to great lividity, conjoined with turgidity; there is great anxiety and dyspnœa, the

nostrils are widely dilated on inspiration, and drawn in above the lobes; during inspiration the pomum adami, and even the chin, are sometimes drawn downwards; the surface is cool and sometimes damp.

100. The dawn of *Phthisis Pulmonalis* is marked by a delicate and often waxy paleness, alternated with transient gentle flushing, slight lividity of the prolabia on exposure to cold, an appearance of indisposition, frequently motion of the nostrils from the respiration, and frequently a quivering of the chin and lips on speaking. Its progress is denoted chiefly by gradual emaciation, in addition to an aggravated state of the other morbid appearances just mentioned.

101. In *Hæmoptysis* there is usually a florid state of the complexion, and frequently the effects of dyspnœa are observed in an acuteness and movement of the nostrils. If the hæmorrhagy has been very great, there may be paleness, lividity, coldness, and a clammy perspiration, with great anxiety.

102. In *Hæmatemesis*, on the contrary, the complexion is generally pale and sallow, and frequently affected as described §§ 81—84; there is less anxiety and an absence of the movements of the nostrils.

103. In *Organic Diseases of the Heart* the expression and complexion are frequently much affected.* In those cases in which the pulmonary circulation is not impeded, the complexion simply becomes unusually vivid and florid. But when the nature of the disease affords an obstacle to the freedom of the pulmonary circulation, this vivid color passes into a livid or violet color, especially in the prolabia, cheeks, and nose; and there is superadded more or less of turgidity, and frequently of coldness. There is great anxiety on mental emotion and bodily exertion, with an increase of the appearances just enumerated, and the head, the ends of the patient's cravat, &c.

* M. Corvisart observes, "la figure, la physionomie, le *facies propria* enfin, sont, pour le praticien exercé, le guide le plus sûr, à mon avis, pour arriver au diagnostic d'un assez grand nombre de maladies tant aiguës que chroniques; mais c'est sur-tout dans les cas de maladies du cœur qu'il importe de considérer attentivement ce signe, qui, je le repète, peut seul, dans bien des cas, les faire reconnaître."—Essai sur les Maladies du Cœur, ed. 2d, p. 371.

are frequently moved by the violence of the beating of the heart. During the progress of the disease, these appearances become aggravated, the complexion is still more livid, the turgidity of the countenance passes into œdema, the eyes at length start, and the head is often moved about, denoting great distress and inquietude.

104. In the paroxysm of true *Asthma*, there is the most urgent anxiety of expression, and a great and rapid movement of the nostrils, usually without lividity; the breath is generally tainted, the tongue much affected, and there are frequent eructations.

105. In *Inflammation of the Abdomen with severe Pain* there is a continued state of contraction of the muscles of the face, inducing an unnatural acuteness of the features; the forehead is wrinkled and the brows knit; the nostrils are acute, drawn upwards, and moved by the alternate and irregular acts of the respiration; the wrinkles which pass from the nostrils obliquely downwards are deeply marked; the upper lip is drawn upwards,* and the under one, perhaps, downwards, exposing the teeth; the chin is often marked with dimples. This state of the features is aggravated on any increase of pain, from change of position, muscular effort, or external pressure. Indeed, in cases of abdominal affection, it is better to press on the abdomen, or beg to the patient to *raise the head and shoulders*, and *watch* the *effect* on the expression of the countenance whilst the patient's mind is occupied with some other subject, than to ask the direct question whether pressure induces pain, as is usually done; for patients naturally suppose that every *painful* part must also be *tender*, and are therefore apt to answer in the affirmative, although incorrectly.

106. In cases attended with *Spasmodic Abdominal Pain* the contractions of the muscles of the countenance are more violent but less permanent; during the paroxysms, the distortions of the countenance take place in a degree scarcely observed; in the interval, the countenance recovers a calm, unu-

* See Laennec, ed. 1, t. i, pp. 90; 398.

sual, if not incompatible, with inflammation. The transition of spasmodic into inflammatory pain may often be traced with great distinctness, by carefully observing these changes and modifications in the expression of the countenance.

107. The *degree*, *increase*, or *diminution* of the disease may also be observed and ascertained by the concomitant increase or diminution of the acuteness and contraction of the features.

108. The *transition* of inflammation into the state of *Sinking*, or the *supervention of Gangrene*, is denoted by a fallen state of the features, the muscles becoming relaxed, the surface cold, with cold perspiration, shrinking, and pale lividity, the cheeks sunk, the malæ prominent, the nostrils, &c. affected by a labored respiration.

109. The appearance of the countenance affords a valuable source of distinction between the *Chronic Dyspepsiæ* and *Insidious Organic Disease*. In the former, the appearances are as described §§ 80, 84; in the latter, there is a characteristic, early, and progressive loss of flesh, with paleness, perhaps slight flushing, but without sallowness, the bony and muscular parts become exposed, the integuments are drawn into deep wrinkles, and there is often coldness and perhaps lividity.

110. Such a state of the countenance, with an expression of pain, uneasiness, or anxiety, often leads to the detection of slow and *Insidious Pleuritis or Peritonitis*, as well as of other diseases which would long remain hidden, from being unattended with acute pain.

111. *Scirrhus* and *Cancer* are apt to induce sallowness and emaciation—a circumstance by which they are sometimes distinguishable from other tumors or ulcers.

112. *Polysarcia* is distinguished from Anasarca in the face, by observing that in the former the tumor is deposited with a certain regularity, so that in general the symmetry of the countenance is not destroyed, nor the features much disfigured.

113. In *Anasarca*, on the contrary, an inelastic tumor is dispersed unequally over the face, the features are obscured, the symmetry of the countenance is destroyed, the expression

lost, and the person is scarcely recognised; the posture of the patient during sleep influences the distribution of the swelling, and often occasions one side of the face to be more affected than the other; but the eye-lids, the lips, and the cheeks, and in general the parts of loosest cellular texture, are most distended.

114. In general it may be observed that the *brow* is contracted by pain within the head, the *nostrils* are drawn acutely upwards by pain of the chest, and the *upper lip* is raised and stretched over the gums or teeth in painful affections of the abdomen.

115. Alternate dilations and contractions of the *nostrils* arise from any effort in respiration, and are observed in great debility, in the synochus and typhus fever, in acute inflammations of the chest or abdomen, in organic disease within the thorax, &c.

116. *Extreme pallor* of the prolabia is observed in excessive hæmorrhagy, purpura, chlorosis, &c.; *deep lividity* denotes a defective arterialization of the blood, and occurs in disease of the heart, &c.; *pale lividity* occurs in cases in which the circulation at the surface is languid and imperfect.

117. One of the most important points embraced in the symptoms of diseases, and one particularly observed in the countenance, is the circumstance of *emaciation*. It may be said to be the surest index to the detection of those diseases which are characterized at once by their insidious character and serious and dangerous tendency.

118. It may be observed, *in conclusion*, that to notice *every* morbid appearance of the countenance would be almost impossible, and even useless. The object of such an attempt as the present, is rather to *lead to observation;* the remarks which have been made are sufficient, I trust, to point out the importance of the inquiry. Many of the morbid appearances of the countenance, like the morbid states of the pulse, respiration, &c. are, after all, to be *observed* and *felt*, and scarcely admit of description.

119. My object has therefore been to select a few instances of morbid affections particularly distinguished by the state of

the countenance, in order to invite the attention of the medical student more particularly to a source of judgment and information applicable also to *those fainter shades of diversity and change*, the perception of which so much distinguishes the physician of observation from the mere practitioner.

120. Sufficient has been done, however, to prove that the countenance, in its various morbid conditions, affords characteristics of many diseases, and denotes, in a remarkable degree, the state, course, increase, or decline of nearly all. The *prognosis* is greatly prompted by the condition of the countenance, as may *still* be learnt from the writings of Hippocrates and Celsus.

CHAPTER II.

ON THE MORBID CONDITIONS OF THE ATTITUDE.

121. I EMPLOY the term attitude in a rather comprehensive sense, intending to embrace, under this head, the consideration of *the postures and motions of the body, the state of muscular debility, power, contraction, and motion, some particular actions, and the general manner of the patient.*

122. In general, the *supine* position, and *tremulous* motions of the body, denote muscular debility,* and distinguish, in an *early* stage, the acute forms of *Idiopathic* from *Symptomatic Fever.*

123. Augmented power and action of the muscular system, with quick and forcible changes of position, denote a state of delirium, of spasmodic pain, of internal suffering, or of inquietude.

124. Certain positions adopted and retained with caution, and restrained movements of the body, are the usual effects of inflammatory pain: other fixed positions depend on the state of the respiration, and of the circulation through the heart.

125. Certain movements of the head, certain actions of the hand, and certain peculiarities of the general manner, also occur as characteristic of particular diseases, and will be noticed hereafter.

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* I restrict, in this place, the application of the term debility by the epithet muscular, because it is now well known that this species of weakness is frequently the effect of oppression and the associate of increased vascular action; just as a throbbing pulse may accompany the state of exhaustion.

126. The morbid states of the attitude will appear more distinctly marked, by being contrasted with the more usual and natural positions of the body.

127. In healthy and undisturbed sleep, the usual posture is that on one side, the body being frequently inclined rather to the *prone* than to the *supine* position; the head and shoulders are generally somewhat raised, and, together with the thorax, bent gently forwards; the thighs and legs are in a state of easy flexion. The position is apt to be changed from time to time, the person lying on one or other side alternately.

128. I now proceed to notice the different *morbid* states of the attitude:—

129. In *Acute Synochus*, one of the earliest and most characteristic symptoms is a deep sense of debility, with tremor, and an incapability of supporting the erect position; this posture, if assumed, induces also the feelings of vertigo and faintness.

130. In *Acute Inflammation* there is comparatively little or no tremor or muscular debility, or tendency to vertigo or faintness; the patient is capable of moving, and even of walking, even in a late stage of the disease.

131. In *Protracted Synochus* there is, in some cases, for a considerable time, a supine position, with scarcely the ability to change or support the position on the side; there is tremor, consisting of less rapid but more considerable movements than those observed in the acute form; the knees are apt to be raised.

132. In the milder form of *Typhus Fever* the patient sometimes gets up or continues out of bed, but appears feeble and trembling, and as if incapable of such a degree of exertion, whilst he draws near the fire from susceptibility to cold. In cases in which, however, the patient cannot get out of bed, he experiences *vertigo*, and perhaps faintness, on being requested to sit up in bed for a minute or two.

133. In the severe forms of *Typhus Fever* the position of the patient becomes gradually more and more supine, and the actions more and more tremulous: from being able to retain the posture on the side, perhaps, the patient falls upon his back,

with the lower extremities extended, and sometimes with a tendency to sink towards the bottom of the bed; the hands and arms are moved with effort and tremor, and at length there is constant subsultus tendinum. To this state, picking of the bed-clothes, or of flocci volitantes, delirium, or coma, is superadded.

134. Hippocrates* and Celsus† have accurately described the posture of Fever. Celsus observes, "ubi vero febris aliquem occupavit, scire licet non periclitari si in latus aut dextrum aut sinistrum, ut ipsi visum est, cubat, cruribus paulum reductis; qui fere sani quoque jacentis habitus est; si facile convertitur, &c. Contra gravis morbi periculum est, ubi supinus æger jacet, porrectis manibus et cruribus," "ubi deorsum ad pedes subinde delabitur; ubi brachia et crura nudat et inæqualiter dispergit."

135. As this position is occasioned by extreme debility, any change of posture is of favorable omen, as denoting a return of strength. The patient perhaps raises the knees, or puts the arms out of bed, or places them above his head. These movements are amongst the first symptoms of recovery. At length the patient is capable of supporting the position on the side—a certain mark of returning muscular strength, and an indication of a favorable change in the disease.‡

136. *Tremor* is amongst the first and most characteristic symptoms of *Continued Fevers;* but it occurs also in some other morbid affections, united with less muscular debility.

137. It forms so remarkable a symptom in the *Delirium Tremens*, as to have been adopted as part of its designation. In one instance the tremor had preceded the delirium several

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* Προγνωστικον. † Lib. ii, cap. 3, 4, 6.

‡ There are two points in the *treatment* of Typhus Fever, connected with the attitude, of the utmost importance:—sometimes the supine position is retained so long, that ulceration takes place on the compressed parts, especially about the sacrum or pelvis. Dr. Arnott's very ingenious proposal of the hydrostatic bed seems admirably adapted to obviate this calamity. The second point is cautiously to guard against the effects of muscular exertion during the period of *convalescence.* I know, by experience, that by far the greater number of *relapses* are occasioned by early and undue exertion and fatigue: the effect is speedy, or gradual, sinking of the powers; the inference is obvious and of the utmost consequence.

days, and I was enabled to predict the occurrence of delirium: in another case, the effect of drinking, the affection consisted in great tremor, and, being cut short, delirium never occurred. It is scarcely necessary to advert to the more constant state of tremor observed in hard drinkers.

138. Tremor on holding out the hand, in writing, in carrying a cup to the mouth, in walking, and in articulation, is a usual symptom of *Acute Dyspepsia;* it is generally conjoined with an appearance of nervousness and of susceptibility to hurry and agitation.

139. Tremor is far less and later observed in cases of local inflammation or organic disease; it does, however, occur in *Phthisis Pulmonalis,* and in cases in which the general strength suffers.

140. The form of tremor which I have described seems to depend on muscular debility, and perhaps on a morbid condition of the brain and nervous system. There is a kind of tremor of a more *spasmodic* character, which occurs from various causes, and which I shall notice towards the conclusion of the present chapter.

141. The *effect* of particular postures is of importance to be noticed as distinctive of *Affections of the Head.* In the idiopathic affections, as in the state of threatening of apoplexy, vertigo and other morbid feelings are apt to be experienced on *stooping:* in the symptomatic affections, as in fever, acute dyspepsia, intestinal irritation, exhaustion, &c. vertigo is usually experienced on assuming the *erect* position.

142. An attention to the posture of the patient is also of importance in the treatment: the recumbent position is as injurious in the case of apoplexy, as it is beneficial in that of syncope.

143. It is scarcely necessary to point out the effect of hemiplegia, paraplegia, or partial paralysis, on the attitude. In *Hemiplegia* the patient is apt to lie or fall more or less upon the paralyzed side, and especially upon the paralytic arm. In *Paraplegia* the posture in sitting is manifestly marked by the defective muscular power, the patient being constantly apt to slide off the chair or sofa. In the *Partial Paralysis* it is

found that the hand cannot be moved so freely or clasped so firmly, or the foot and toes are lifted imperfectly from the ground in walking.

144. The attitude is peculiar in the different forms of *Inflammation of the Chest.* In *Pleuritis* the patient usually reposes on the affected side, which is thus kept free from movement. In *Pneumonia* the patient almost invariably assumes and retains the posture on the back. In those cases which are attended with *much dyspnœa*, the patient is frequently obliged to have the head and shoulders raised, and even to assume the erect position. I have observed, in some cases attended with great dyspnœa, that the patient has lain on the side, with the arm of the other side placed upright before the chest, the hand pressing forcibly on the bed: in this manner the shoulder became fixed, and afforded a firm attachment from which the pectoral muscles acted to expand the chest.

145. In *Phthisis Pulmonalis* the posture is various. Frequently, however, one particular position is chosen and preserved—pain, cough, dyspnœa, or oppression, being induced in any other: this is usually on the side most diseased, as that in which *pleuritic* pain is most apt to exist, early in the disease, or *cavities*, in its later stages.

146. In extreme *Hydrothorax*, the position of the patient is frequently highly characteristic; it is less so, probably, according as the effusion has taken place more gradually and slowly. In the *less severe form*, the patient, when in bed, usually lies with the head, shoulders, and chest gently raised by additional pillows; when out of bed, he is often observed to sit up, with the arms placed along the side, and the hands fixed and pressing forcibly on the chair, or sofa, on which he sits: in other cases he leans a little backwards, still supported by the arms and hands, which are placed behind the back. This kind of posture is often constant, or immediately resumed if any accident occasions it to be changed: it gives rise to an elevation of the shoulders, from which the body is supported, or as it were suspended. In the *severer forms*, the attitude varies with the degree and progress of the disease: at first, the patient lies with the head and shoulders greatly raised; afterwards

the posture becomes more and more erect; at a still more advanced period, and in a more aggravated form of the disease, the patient is sometimes incapable of remaining in bed, and is obliged to sit up, with the legs hanging down; sometimes an arm-chair is obtained, on each arm of which the patient presses and supports the hands or elbows, thus *suspending* the shoulders; sometimes a second chair is required, on the back of which the patient reposes the forehead, or both hands and forehead, pressing with considerable force, thus *fixing* the upper attachments of the sterno-mastoid muscles.

147. This aggravated state of the attitude is certainly most frequently observed in cases of hydrothorax *complicated* with organic disease of the heart or lungs, or of the liver or other organ situated in the abdomen. In some cases of hydrothorax in its simpler forms, the patient has retained a nearly horizontal position; in cases of complicated hydrothorax, he has even expired out of bed, supported by his friends.

148. In *Organic Diseases of the Heart*, the attitude—at first the effects of bodily exertion, and afterwards the particular posture of the patient—is very characteristic. In *incipient* and dubious cases, the diagnosis is assisted by observing the effect of muscular effort, especially such as involves much change of position and general motion of the body: let the patient be requested to *run up stairs*, the symptoms are invariably produced in cases in which they would be quiescent in a state of repose, or aggravated if permanent. In a *more advanced* stage of the disease, the sufferings of the patient become more acute and permanent; a certain restlessness, anxiety, and dyspnœa, aggravated extremely by every muscular effort or motion, take place, and distinguish the case from simple hydrothorax, in which muscular motion induces far less inconvenience. In a still *more aggravated* form of the disease, the patient requires to be raised in bed more and more, until the erect posture, or even a posture *inclined* upon the thighs, becomes necessary; and at length there is an inability to sit erect even, while the lower extremities are placed horizontally, and the patient is obliged, perhaps, to sit on the side of the bed, with the legs hanging down and the feet on the floor; the night, as well as

day, is sometimes spent sitting up in a chair near the fire, sometimes with the head supported on the back of a chair, and the body leaning considerably forwards: in this stage of the complaint there are an inexpressible restlessness and anxiety. At *any period* of disease of the heart, a sudden change of posture from the horizontal to the erect frequently becomes necessary, from the aggravation of the symptoms and general agitation induced by a turbulent or terrific dream; frequently too the patient is obliged to get out of bed and repair to the window to respire the open air.*

149. In the paroxysm of *Asthma*, by which term I designate the cases of sudden attack of dyspnœa arising, *at first*, from a disordered state of the digestive organs, the erect position is usually necessary; and there are great anxiety and urgency of suffering, frequently with active restlessness.

150. In *Inflammation in the Abdomen with Acute Pain*, a certain position of the body is chosen and retained, and all muscular exertion, motion, or change of position, is carefully avoided:—the patient lies on the back with the thighs raised, or he is supported in a somewhat elevated posture by means of pillows placed under the head and shoulders, or he lies on the side, with the thorax and the thighs in a state of gentle flexion on the abdomen; if he be desired to raise the head by muscular effort, an expression of aggravated pain is immediately visible in the countenance; the hands, and perhaps the bed-clothes are carefully removed from pressing on the abdomen; the arms are put out, and the knees raised or depressed with great caution; the manner is soft, and the voice low and plaintive, with moaning, and a suppressed kind of complaining.

151. In *Spasmodic Pain of the Stomach*, or in *Colic*, the

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* It need scarcely be observed how important an attention to the attitude becomes, in the *treatment* of diseases of the heart. In the incipient stage, the patient ought to *vegetate* as it were, and carefully to avoid every kind of exertion, as well as of emotion: in this manner, life and a comfortable state of existence may frequently be long insured. In the later stages, every attention should be paid to enable the patient to support with ease the position which affords the greatest relief.

reverse of this state of general attitude is observed: the patient usually writhes to and fro, and constantly changes his position or mode of lying, instead of observing the cautious stillness of Inflammation; he often lies on the abdomen, or in the supine position, pressing violently on the bowels, or even grasping a portion of the abdominal parietes with the hands; or he sits in bed, bending forcibly forwards on the thighs; he cries out during the paroxysm of pain, and speaks in a loud and irritated tone of voice. All this violence, both in general manner and posture, forms a remarkable contrast with the subdued motions of Inflammation.

152. *After the Paroxysm* of pain in Colic, the patient resumes an easy position; in the absence of an aggravation of pain in Inflammation, the same cautious posture and manner are still observed as before.

153. The transition from Spasm or Colic into Inflammation may be easily traced by cautiously observing the characters of these different affections.

154. The termination of Inflammation in *Gangrene, or Sinking*, is marked by the fallen and supine position, and extreme debility; the patient lies extended on the back without the flexion and precaution previously observed in the stage of Inflammation; the manner of the patient still remains soft and plaintive.

155. In *Strangulated Hernia* the posture is at first, perhaps, attended with writhing, but *soon* becomes the same as in Inflammation, especially with the precaution of bending the thighs on the abdomen.

156. In *Inflammation of the Kidney* the patient, when up, often inclines somewhat to the side affected, and a little forward, especially in walking; and, in a painful state of the affection, he walks with unusual precaution.

157. In *Inflammation of the Bladder* the patient frequently bends forwards on the pelvis, evidently with the view of giving protection and relief to the parts contained in it, and of using as little as possible those muscles whose action might give pain; he walks cautiously, and often bends forward still more, during this action of the muscles.

158. *Retention of Urine*, as a symptom in acute diseases, is often denoted by a state of constant elevation of the knees, which is *inexplicable* until the cause is discovered.

159. In *Organic Disease* in general, the patient soon becomes affected with a serious, continued, and unvaried debility, stoops in walking, and moves with slowness and caution. And deep-seated pain or uneasiness is often experienced from the succussion induced by *sitting down* or making *a false step in walking*, especially when there is a state of tenderness from inflammation.

160. In the appearance of the *Hand* it is often easy to read a state of pain, anxiety, or other suffering:—it is closed or expanded, or variously moved. I do not, however, deem it necessary to enter into any detail respecting points so perfectly obvious.

161. There is another symptom of importance to be noticed —viz. the state of *jactitation* and *inquietude;* it occurs in different states of the system and in some diseases, but principally in cases of *irritation*, *exhaustion*, and *sinking*, and in *Diseases of the Heart.** I reserve the consideration of these subjects for a subsequent part of this work.

162. Besides the morbid states of the general attitude already described, there are some other more partial affections, chiefly of muscular action, which deserve to be noticed; these are principally *spasmodic tremor*, *paralysis*, and *contraction*. And there are some more general affections of a similar kind constituting *convulsion* and *rigidity*. It may be sufficient to enumerate the principal cases of these morbid affections, observing that the subject still presents ample scope for resumed inquiry.

163. Spasmodic tremor occurs in a remarkable degree in the *Shaking Palsy*,† in *Chorea*, as an effect of the *Poison of Mercury*,‡ of drinking *Spirits*, &c.

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* In all cases of this kind, as well as in the *Erethismus Mercurialis*, *sudden death* sometimes occurs from suddenly assuming the erect position, or from other muscular effort or exertion.

† See Mr. Parkinson's interesting pamphlet on this subject.

‡ Bateman's Reports of the Diseases in London, p. 192.

164. Paralysis, the usual consequence of disease of the brain, the spinal marrow, or the nerves, is observed as an effect of the *Poison of Lead*, of exposure to cold, &c.

165. Contraction, of the hand for instance, is a rather remote effect of *Paralysis*, *Epilepsy*, *Chorea*, *Hysteria*, of the various morbid affections termed *Fits*, &c. and is usually observed on one side of the body only.

166. A singular state of contraction of the hand occurs in children, and is described by Dr. Kellie.*

167. General Convulsion occurs in cases of *Diseases of the Brain*, especially of the parts about its base, *Epilepsy*, *Puerperal Convulsion*, *Hysteria*, *Hooping Cough*, &c. The *effect* of convulsive action on the circulation within the head has not hitherto been sufficiently attended to by physicians. Hysteric convulsion assumes, from long and frequent repetition, an epileptic character; epileptic convulsion often induces an apoplectic coma; and pertussis, from the violence of coughing, frequently leads to fits, and even to hydrencephalus, &c.

168. General rigidity occurs in *Tetanus*, and in some cases of *Epilepsy* and *Hysteria*.

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* Edinburgh Medical and Surgical Journal, vol. xii, p. 448.

CHAPTER III.

ON THE MORBID APPEARANCES OF THE TONGUE, ETC.

169. The circumstances to be noticed in an examination of the morbid conditions of the Tongue, and in immediate connection with them, are, *its surface, form, papillæ, color; its mode of being protruded; the teeth, gums, and internal parts of the cheeks; the taste; the breath, &c.*

170. The surface is apt to be affected with *whiteness, load, fur, dryness, blackness, chaps, &c.*

171. The form of the tongue is frequently modified by its becoming *swollen, indented, fissured, and lobulated.*

172. The papillæ are, in some cases, morbidly *prominent and enlarged*, and in others almost *obliterated*, leaving a smooth and perhaps tender surface.

173. The tongue is protruded with difficulty, from dryness, tremor, or paralysis, and is left protruded in cases of imperfect sensibility.

174. The internal mouth, the breath, and the taste, are apt to be affected, conjointly with the tongue, especially when the latter is swollen and indented.

175. In the *Acute Synochus*, the tongue is usually extremely white and loaded, with much thirst, an impaired taste, and sometimes a tainted breath, but usually without dryness.

176. In *Acute Inflammation* the tongue is not *necessarily* much affected; in some cases it has preserved nearly its natural state: it is, however, frequently whitish or furred; it is frequently moist, and free from indentation, unless it be modified by the conjunction of a disordered state of the alimentary canal.

177. In the *Protracted Synochus*, the tongue is at first white and perhaps loaded; afterwards it is apt to become clean, red, and dry, and sometimes unnaturally smooth, and perhaps tender; the teeth become a little affected with mucous sordes.

178. In *Chronic Inflammation* the tongue, mouth, taste, and breath, are frequently unaffected: in the later stages, there are frequently aphthæ and soreness of the tongue, internal mouth, and fauces.

179. In the milder form of *Typhus Fever* the tongue is white and rather loaded, with a tendency to dryness: it is generally protruded with tremor.

180. In the severer forms of *Typhus Fever* the tongue becomes dry, parched, and tender, and dark brown or black; it is often protruded with great difficulty, from its state of dryness and of tremor; the internal mouth is also dry and foul; the teeth are affected with brown mucous sordes; the breath has a peculiar odor. The state of dryness is increased during sleep, the mouth being then usually open. It is important to remark whether, with a given state of the tongue, the *tendency* is to an augmentation or diminution of its morbid character.

181. In *Intermittent Fevers* the condition of the tongue varies greatly in the different stages and in the interval. In the *cold stage* it becomes dryish and clammy; in the *hot stage* the tendency to dryness is still greater; in the *sweating stage* and in the *interval* the tongue approaches more to its natural state, remaining only whitish and rather loaded.

182. It may be justly remarked that the tongue affords one of the best diagnostics of the different kinds and degrees of idiopathic fevers, of idiopathic from symptomatic fevers, and of their complications. And its changes and tendencies denote, in a particular manner, those of the fever itself.

183. *Scarlatina* is frequently distinguished from *Rubeola* by numerous, elongated, florid papillæ, which protrude through the white load.

184. In *Variola*, pustules sometimes appear on the tongue and in the internal mouth. The occurrence of salivation, and

of tumefaction of the countenance, followed by swelling of the hands and feet, is familiar to all.

185. I now propose to give a description of those morbid states of the tongue which occur in the varied forms of the *Dyspepsiæ:*

186. The most ordinary effect of an occasional or accidental derangement in the stomach and bowels, is a loaded state of the tongue, the superior surface of this organ becoming covered with a layer of whitish, soft, mucous substance, admitting of being partially removed by the tongue-scraper; the whole internal mouth is, at the same time, more or less disagreeable and clammy, the taste depraved, and the breath offensive; and frequently the substance of the tongue is a little swollen, œdematous, and marked by its pressure against the contiguous teeth.

187. In the *Acute Dyspepsia* noticed above, § 80, the state of the tongue already described is observed, with some modifications: the tongue is in general loaded, the mouth clammy, the taste bitter or nauseous, the breath fœtid, whilst the surface of the face is frequently oily. In some severe cases, the *load* has been very thick, and has eventually *pealed off*, leaving the tongue red, smooth, and tender: the *substance* of the tongue is generally swollen, œdematous, and impressed by the contiguous teeth; the *gums* are often red, tumid, and somewhat separated from the teeth by tartar, and are easily made to bleed; the inside of the *cheeks*, also, frequently partakes of the œdema, and receives, like the tongue, impressions from the adjacent teeth; sometimes the cheeks and the gums of the posterior part of the mouth have been so swollen as to protrude a little over the teeth, and are either *ulcerated* by the pressure, or *wounded* by being bitten—circumstances which are apt to be induced or aggravated by cold. Through the load on the tongue the red *papillæ* are frequently seen, either over its whole surface or at its point principally; frequently the tongue is not only *indented*, but formed into *creases* or folds; sometimes deeper and more numerous *sulci* are formed, the edges of which are sharp, and the sides in contact, requiring to be separated by the two fingers, or by protruding the tongue fur-

ther; in some cases the tongue is less loaded and indented, and its edges are red and even.

188. In cases of the *Acute Dyspepsia*, I have seen the tongue affected with deep, foul ulcers, resulting from the slow suppuration of hardnesses about the size of a horse-bean or nut, situated just under the surface of the tongue, which is loaded, swollen, and foul, with a copious flow of saliva, and a fœtid breath.

189. In *Chronic Dyspepsia* the tongue is sometimes affected, in a slighter degree, in the manner just described, being somewhat tumid, indented, and sulcated; it is in general, however, less pasty and œdematous; it is frequently covered with a sort of viscid mucus; sometimes it is slightly white, from numerous, minute, white *points* crowded over its surface; it is also frequently affected with *fur*, consisting of short fibres resembling those of coarse velvet, and admitting of being separated by the finger. In this affection the tongue is frequently rather dry; and I have seen it, in several instances, sulcated longitudinally.

190. In very *protracted* cases, the tongue assumes several remarkable modifications of form and surface. In the *first* case there is a universal *enlargement of the papillæ* over its surface, which is now generally clean; in two instances the papillæ at the most *posterior part* of the tongue became particularly enlarged, causing pain on swallowing, and some alarm to the patients; in the *second* modification the surface of the tongue is formed into *lobules*, sometimes deeply intersected and resembling in form those of the base of the cerebellum, at other times, of less regular form, and, lastly, assuming the form of squares; in the *third* variety the tongue acquires an absolute and morbid *smoothness* of surface, which appears as if glazed, and is tense and unyielding. In all these cases the tongue is morbidly clean—the mouth, taste, and breath being nearly natural—and its color, although perhaps rather paler, frequently little changed; the complexion is usually rather pale and sallow, but the surface of the face is free from oiliness, and the integuments from tumidity.

191. The condition of the tongue in *Chlorosis* is very cha-

racteristic: in the *beginning*, the tongue becomes rather pallid and tumid, and has frequently enlarged papillæ over its surface; it is somewhat loaded, indented, and sulcated; the gums and prolabia are pallid, and the breath is somewhat tainted. At a *more advanced period*, the tongue becomes cleaner, smoother, still more exanguious, and acquiring a peculiar semi-transparency, and a very pale lilac hue; it remains a little swollen and indented, but the papillæ disappear and give place to a morbid smoothness; the complexion, prolabia, gums, and tongue are alike exanguious, and perhaps a little tumid; the breath is still less tainted, and even acquires an odor of new milk; and the mouth becomes less clammy and disagreeable.

192. It has already been observed that a particular state of the tongue accompanies a particular condition of the complexion and general surface, and that, by observing the latter, the state of the former may frequently be anticipated: the loaded and swollen tongue is usually associated with an oily and swarthy state of the surface and complexion; the pale, tumid, and clean tongue, in *Chlorosis*, is accompanied by a tendency to tumidity of the integuments in general and œdema of the ankles; and the clean, papulated, lobulated, fissured, or morbidly smooth tongue is united with a nearly natural state of the general surface. The morbid secretions of the mucous membrane of the tongue and internal mouth are thus connected with a morbid secretion of the skin; the exanguious and tumid state of the tongue, with a similar condition of the integuments, both apparently originating in the same state of the capillary circulation; the nearly clean tongue accompanies the *icterode* complexion without tumidity or extreme pallor; and the morbidly clean tongue is attended with little change of the complexion and general surface.

193. The appearance of the tongue in these cases denotes, in a particular manner, their *duration*:—the mere *load* is often soon induced and soon removed; a *swollen* tongue has required a longer time for its formation, and demands a longer use of remedies; the state of tongue in Chlorosis, § 191, are of still slower formation and removal; and those described § 190, are often the effect of *years* of disorder, and are probably never

totally remedied. By an accurate knowledge of the different morbid states of the tongue and of their concomitant morbid affections, the physician is frequently enabled to speak to his patients in a manner which excites their surprise, by indicating his distinct and accurate information respecting their diseases, especially in respect to the history and symptoms.

194. In true *Asthma* the tongue has, at first, the appearances observed in the *Acute Dyspepsia.*

195. In long-continued cases, both of disorders and of diseases, it is not unusual for *Apthæ* to occur, and they are occasionally seen in acute affections. The tongue, inside of the cheeks, posterior part of the mouth, and the fauces, are covered with white, minute, tender vesicles, which are apt to be recurrent, soon assume the form of white exfoliations, and leave the subjacent parts smooth, red, sore, and tender. Sometimes the œsophagus, stomach, and alimentary canal appear affected, and obstinate sickness and diarrhœa occur, with a sense of burning. The affections in which apthæ are most apt to occur, are *protracted* cases of the more serious forms of *Dyspepsiæ*, *Phthisis*, *Mesenteric Disease*, and *Chronic Pleuritis or Peritonitis.*

196. As an effect of *cold*, and especially in conjunction with disorder of the digestive organs, there is frequently an eruption of one, two, four, or more *Apthæ*, or *small circular ulcers*, of from one to three or four lines in diameter, on the inside of the lip or cheek, on the point or near the root of the tongue, &c.; there is great tenderness, and a minute slough, surrounded by an inflammatory border; the state of tenderness continues several days, and the whole course of this affection, like the one about to be mentioned, occupies from six to ten days.

197. With or without the last-noticed affection, and from *similar causes*, there is frequently an eruption of *Herpes*, or of a cluster of small vesicles, occupying some part of the prolabium or the angle of the mouth. It generally denotes that the patient has taken cold.

198. There is a chronic affection of the *Prolabium* and immediately adjoining skin, which I have not seen described:— it consists of a repeated dry, splitting, and exfoliation of the cutis of these parts, and occupies a ring, of about one fourth

of an inch across, all round the mouth; it varies in severity at different times and in different cases; it is long continued, and appears to result from a protracted state of disorder of digestion; it occurs chiefly in early youth.

199. *Fur*, with a tendency to dryness of the tongue, usually denotes great local irritation,—such as violent inflammation,—from an accident,—of a joint, &c. This appearance is also common in cases of intestinal irritation. It occurs in some forms of the *Dyspepsiæ*, especially the chronic and cachectic. The state of fur of the tongue appears to arise from very different causes from that of load; its indications are therefore very different too; it is also in general more difficult of removal.

200. In *Diseases of the Heart* with great lividity of the prolabium and countenance, the tongue and internal mouth frequently participate in the general discoloration.

201. There are sometimes great peculiarities in the *odor of the breath*. I have mentioned the *fœtid* odor observed in *Acute Dyspepsia*, and in some very protracted cases of *Chlorosis;* I have observed an odor of the breath resembling that of *new milk;* in some morbid affections of the *Lungs*, the breath has an extremely offensive taint; and there is occasionally in some diseases, and I may particularize *Dysentery*, a *cadaverous* odor, affording a most unfavorable prognosis.

202. An attention to the odor of the breath is of great use in detecting the case of intoxication,—and even of some cases of poisoning.

203. The *mode of protruding and of withdrawing the tongue*, is often worthy of notice. I have already named the tremor of idiopathic as distinguished from symptomatic fever. In cases of *stupor* from fever, or from disease of the brain, the tongue is sometimes protruded imperfectly, and not immediately,—and sometimes it is left out until the patient is told in a loud voice to draw it again within the mouth.

204. In cases of *Paralysis* the tongue is often protruded to one side, and frequently the saliva flows from the angle of the mouth.

205. The tongue is frequently severely bitten during the fit of *Epilepsy*.

CHAPTER IV.

ON THE MORBID CONDITIONS OF THE GENERAL SURFACE.

206. The objects comprised in this chapter are *the temperature, the state of dryness or moisture, of tumidity or shrinking, or of roughness or smoothness of the skin, the color, the occurrence of emaciation, or of œdema or anasarca, and the condition of the hands and feet.*

207. The temperature of the general surface and of the hands and feet is greatly modified by febrile, functional, and organic affections, and has been found, in some affections of the heart, to form a striking contrast with that of the internal mouth or of the rectum.*

208. The state of heat, tumidity, dryness, and roughness, seems to characterize the idiopathic fevers and to distinguish them from the symptomatic, in which an opposite state of the surface is more usual.

209. The color is modified by the condition of the cutaneous circulation, of the blood itself, and of the cuticular surface.

210. It is of the utmost moment to remark the occurrence of emaciation or of œdema, as important sources of the diagnosis of functional and organic morbid affections.

211. The condition of the Hands and Feet, and the appearance of the Nails especially, vary with the state of the blood, and of the circulation, of which they afford a sort of index, and, in some protracted cases, with that of the cuticular and cutaneous surface.

212. The *Acute Synochus* is characterized by a tumid, smooth, soft, and dry state of the surface, with a sense of

* Farre's Essay on Malformations of the Heart, p. 32, et seqq.

glowing heat and a florid color: this state is apt, however, to be modified by the occurrence of rigor, or of perspiration.

213. In *Acute Inflammation* the surface is, on the contrary, frequently nearly natural, of moderate heat, and inclined to perspiration.

214. Profuse perspirations have been particularly observed in the acute fever symptomatic of *Rheumatism*, *Inflammation of the Mamma*, and in some affections of the *Kidney*.

215. In the *Protracted Synochus* the surface gradually becomes dry, rough, and harsh, the cellular substance shrinks, the skin communicates a sense of acrid heat, and the cuticle is often in a state of exfoliation, and sometimes raised on the neck and breast into *miliary vesicles*.

216. In *Chronic Symptomatic Fever* there is usually an absence of this state of the surface, copious perspirations being opposed to the constant dryness, and a natural warmth or even coldness to the acrid heat; the perspirations are apt to be peculiarly profuse in *the last or early morning sleep*; the coldness, often joined with lividity, is sometimes constant, at other times the consequence of the least exposure to cold.

217. The chronic symptomatic fever is, however, much modified by the nature of the *primary* disease: in *Tuberculous Phthisis* there is often the alternation from chilliness to hectic heat and perspiration during sleep; in *Strumous Disease of the Mesentery* there are greater chilliness and sensibility to cold, and cold lividity, with early morning perspirations; and in organic *Disease of the Liver* there is frequently little or none of these symptoms.

218. In *Typhus Fever* the state of the general surface is various, and usually less distinctly characterized than in the morbid affections already mentioned. In the *milder form* the temperature is moderately augmented, especially in the young or plethoric; but there is rarely great heat or dryness. In the *severer form* the surface is sometimes a little parched and the cheek flushed; sometimes cool and affected with clammy perspiration; sometimes there is an eruption of *miliaria* with a dry skin; and sometimes there are *petechiæ*. In the state of *sinking* a cold and clammy perspiration affects the nose,

cheeks, hands, and general surface. In the fever described by Dr. Currie, "the temperature rose, in one case, to 105° Faht.; but was in general from 101° to 103°, and towards the latter end of the disease scarcely above that of health."* Dr. Bateman observes, "the heat seldom exceeded 99° or 100°."†

219. The three stages of *Intermittent Fevers* are highly characterized by the state of the general surface: in the *cold stage* there is great shrinking, and the skin becomes pale, cold, and rough, and in the state termed cutis anserina, and the temperature has been observed as low as 74°; in the *hot stage* the integuments become tumid, and injected, and the skin is hot and dry, and the temperature has sometimes been as high as 105°; in the *last stage* the tumidity, heat, and injection cease and yield to a general perspiration.

220. It is in the *Scarlatina Anginosa* that the greatest degree of tumidity, injection, and temperature is observed; the rash is continuous and imparts a deep red hue, and the surface in general is turgid, hot, smooth, soft, and dry—a state which is succeeded, on the decline of the fever, by dryness, roughness, and exfoliation. There is much diversity in the *degree* of these appearances, as in that of the fever itself; but in severe cases the heat and tumidity are greater than in any other febrile affection of this climate; the thermometer applied to the surface of the body rises to 105° and 106° even in mild

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* Medical Reports, vol. i, p. 11. Dr. Currie observes, with regard to continued fever, that "one exacerbation, and one remission in the twenty-four hours, seem generally observable. The exacerbation usually occurs in the afternoon or evening, the remission towards morning. These exacerbations are marked by increased flushing, thirst, and restlessness. If the heat of the patient be, at such times, taken by the thermometer, it will be found to have risen one or two degrees in the central parts of the body above the average heat of the fever, and still more on the extremities."—Dr. Currie adds, "the safest and most advantageous time for using the aspersion or affusion of cold water, is when the exacerbation or fever is at its height, or immediately after its declination is begun; and this has led me almost always to direct it to be employed from six to nine in the evening; but it may be safely used at any time of the day, *when there is no sense of chilliness present, when the heat of the surface is steadily above what is natural, and when there is no general or profuse sensible perspiration.*—These particulars are of the utmost importance."

† On Contagious Fever, p. 36.

cases, and in the more violent cases to 108°, 109°, 110°, and even 112°—the greatest heat ever observed in the human body by Dr. Currie.*

221. In the *Scarlatina Maligna* there is frequently an entire absence of tumidity, injection, and heat of the surface; sometimes there are shrinking, cold moisture, and a pale or livid rash. It is of the greatest importance to attend to the state of the surface, in a curative as well as a diagnostic point of view.†

222. After the decline of the tumidity and rash of Scarlatina, an anasarcous swelling of some parts of the surface is occasionally observed: it usually affects the extremities and face; and sometimes the sole of the foot has been raised into one entire blister.

223. In *Rubeola* there is comparatively little tumidity, injection, and increased temperature of the general surface; the face, and especially the eyes and eye-lids are, however, often considerably tumid; the heat of the skin is in this disease, and in the *Influenza*, from 99° to 101° and 102°.‡

224. In the *Variola Discreta* except in its mildest forms, there are considerable general tumidity and heat, frequently a warm perspiration, a full state of the pustules, and a soft condition of the intervening portions of skin.

225. In the *Variola Confluens* the surface is shrunk and flaccid, the temperature little or not at all augmented, and the skin is frequently affected with a clammy perspiration, whilst

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* Medical Reports, vol. ii, p. 46.

† Dr. Currie observes, "before I conclude the subject of Scarlatina, I must *again* enforce the superior advantage of using the affusion early in this disease; and the propriety of ascertaining that the skin is dry, and the heat of the patient greater than natural, in all cases, especially in such as are advanced, and where, of course, the strength is considerably impaired. It has come to my knowledge, that in two cases of Scarlatina, of the most malignant nature, the patients have been taken out of bed, under the low delirium, with the skin cool and moist, and the pulse scarcely perceptible. In this state, supported by the attendants, several gallons of perfectly cold water were madly poured over them, on the supposed authority of this work! I need scarcely add, that the effects were almost immediately fatal."—Vol. ii, p. 76.

‡ Medical Reports, vol. ii. 78.

the pustules are flat and flaccid, participating apparently in the state of the cutaneous circulation.

226. In the course of Variola, and usually about the *eighth* day, there is frequently a state of tumefaction of the face and eye-lids, with a flow of saliva; this state recedes, and about the *eleventh* day the tumefaction affects the hands and feet.

227. In the morbid affections already noticed, the temperature of the surface is, for the most part, augmented. There are some diseases, however, in which there is a tendency to *diminished temperature* and frequently great sensibility to cold.

228. There is a certain degree of this tendency in *Acute Dyspepsia*, § 86, and perspiration is excited by the slightest hurry or fatigue.

229. In some cases of *Protracted Dyspepsia*, the nose is livid and cold, and the feet habitually cold. The case is distinguished from that to be next noticed by the absence of frequency of pulse, and of progressive emaciation.

230. But the case in which this peculiarity is most observed is the *Tuberculous Disease of the Mesentery*. In this disease the patient is highly sensitive to external cold, and to the least draught of air, and, in cold weather especially, constantly draws near or hangs over the fire,—sometimes until the hands and legs assume a brown color from the influence of its heat, With this sensibility to cold, there is also frequently a great tendency to *early morning perspirations*, which appear to be induced by *sleep*, and to be in part avoided by keeping awake, which is often done purposely.

231. A slighter degree of chilliness is observed in *Phthisis Pulmonalis*, and in other organic diseases, together with a greater or less tendency to perspiration.

232. Decided shivering occurs in the commencement of *febrile* and *inflammatory* diseases in general; in the beginning of each paroxysm in *Intermittents*. This symptom also occurs in cases of *Intestinal Irritation*, and in a more marked degree than in *Inflammation*. It is an attendant upon suppuration; and then, being repeated, frequently excites the idea of *Intermittent*.

233. There is no point of deeper interest, in a practical point of view, than that of the loss or return of flesh. The continued loss of flesh adds, in obscure cases, to the fear of organic disease; whereas the least return of flesh determines the question favorably.

234. In *Acute Dyspepsia* it is highly interesting to watch the gradual return of flesh under judicious treatment.

235. In *Tuberculous Disease*, on the other hand, there is a daily loss of flesh, however slow.

236. In *Hepatic Disease*, the case is favorable or unfavorable, according as the patient continues to lose or begins to regain flesh.

237. In doubtful cases, the patient's *weight* may be registered, and the result will frequently be contemplated with anxious feelings.

238. In the study of *all*, but especially of *chronic* diseases, there is, indeed, no point of greater importance than that of *Emaciation*. Much might certainly be learned by a constant attention to this subject.

239. The degree of emaciation which takes place in patients, depends in part on the nature of the *disease*, and in part on the nature and office of the *organ* affected.

240. Emaciation is more observed, in a given space of time, in *Fevers* than in *Inflammations*.

241. Loss of flesh takes place in the *Acute Dyspepsia*, but is scarcely observed in the *Chronic* forms of that disorder—a circumstance by which they are therefore distinguishable from *Insidious Organic Diseases* or *Protracted Inflammations*.

242. Emaciation is the usual effect of *Tuberculous* and *Scirrhous* affections of any organ; it is *less* early observed in some other diseases, as in the encephalosis,* &c.

243. Emaciation is little observed in diseases of the *Head*, *Heart*, and even the *Lungs*, compared with those of the *Mesenteric Glands*, the *Stomach* and *Bowels*, the *Liver*, the *Pancreas*, &c.

244. In *Diseased Mesentery* the emaciation and loss of

* Laennec de l'Auscultation, t. ii, p. 62.

strength are nearly, if not absolutely, although very slowly, *progressive*. In *Disease of the Liver* there may be, for some time, even for years, a degree of recovery; and weakness and loss of flesh, and even icterus and anasarca occasionally disappear.

245. There are some highly interesting remarks on this subject, in Dr. Pemberton's interesting work on the Diseases of the Abdominal Viscera.* He observes that, in the organic diseases of the Liver, the Pancreas, the Mesenteric Glands, the Stomach, the Small Intestines, and the Spleen, as "*glands of supply*," there is considerable emaciation; whereas in the diseases of the Kidneys, of the Breast, and of the Large Intestines, which are "*glands of waste*," the loss of flesh is less, and less rapid.

246. Next to emaciation, as a consequence of disease, it is important to remark the occurrence of *Œdema*, or of its aggravated form of *Anasarca*.

247. The principal causes of this affection are *Organic Disease of the Heart*, or *Lungs*, *Enlargement of the Liver*, *Phthisis Pulmonalis*, *Organic Tumors in the Abdomen*, *Pregnancy*, &c.

248. Anasarca is frequently observed in the late stages of *Chlorosis*. It is often, indeed, an effect of debility merely, and occurs, consequently, in the last stages of chronic diseases in general,—from want of nourishment,—and in old age,—and as an effect of profuse hæmorrhagy or purging. Anasarca is also occasionally the effect of long exposure to cold and wet.

249. The causes of anasarca sometimes induce other kinds of dropsy, as *Hydrothorax*, *Ascites*, &c. which are, indeed, like anasarca itself, far more frequently *effects* of diseases, than *primary* diseases themselves. It is important to trace the succession of links in this chain of causes and effects; but it is to be observed that these morbid states come at length to constitute diseases in themselves, and produce, in their turn, their peculiar effects and symptoms.

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* Chapter vi.

250. The appearances of the general surface in cases of *Cachexia* are peculiar; but they do not appear to require description in this place.

251. There is a singular morbid affection of the surface, which has not, I think, been noticed by any practical writer: *the face, and some parts of the surface of the body, become suddenly and remarkably puffed and swollen;* this affection appears to be occasioned by the presence of some indigestible substance in the stomach, and generally yields to the operation of an emetic and purge.

252. I now proceed to notice some morbid states observed chiefly in the *Hands and Feet*, although partly too over the general surface. The *nails*, like the prolabia, § 63, afford an opportunity of observing the state of the blood; the *hand*, in general, often denotes, by the condition of its surface, the degree of force or feebleness of the circulation, at least in the capillary vessels, and by its steady or tremulous movements, the strength or weakness of the muscular system.

253. *Continued Fevers* and *Inflammations* in general, are distinctly characterized by the morbid affection of the surface, and by the state of tremor, so generally observed in the former, and so little, comparatively, in the latter.

254. In the *Acute Synochus* there is generally considerable tremor and burning heat; in *Acute Inflammation* these affections are usually absent.

255. In the *Slow Synochus* the hand is still more tremulous, and its surface becomes dry, parched, and exfoliating; in *Chronic Inflammations* the surface is generally totally different, and there is only the tremor of weakness.

256. In *Typhus Fever* the tremor frequently assumes the aggravated character of subsultus tendinum. It is scarcely necessary to make any allusion to the circumstance of the picking of the bed-clothes, flocci volitantes, &c.

257. There is one morbid affection in which tremor is so characteristic as to have been chosen for its denomination,—the *Delirium Tremens*. From the occurrence of this symptom in a remarkable degree, I was enabled, in one case, to *foretell* that delirium would follow.

258. In *Acute Dyspepsia*, a degree of tremor is observed on desiring the patient to extend the hand and arm; the surface of the hand is apt to be cold and clammy, and the nails to assume a lilac hue, and their tips to become white and opaque. These appearances are, in some instances, very long continued, and they are always very characteristic.

259. In *Chlorosis*, the hands, fingers, and nails, become characteristically pale and exanguious;—the skin is frequently opaque and puffy, and usually dry;—there is a tendency to œdema, and, at length, to anasarca.

260. In *very protracted* cases of *Dyspepsia*, the skin becomes gradually dry, branny, and sallow, or brownish, and the nails become brittle, break off in lamellæ,—so that the patient is incapable of taking a pin out of her dress,—and sink in irregularly in their middle part. This state of the nails is by no means unfrequent.

261. In common *Dyspepsia* even, the hands and feet are apt to be cold.

262. In *Organic Disease of the Heart*, the hands, like the nose and cheeks, frequently become deeply livid and very cold,—whilst the heat within the rectum and under the tongue is sometimes even higher than natural;* in young subjects the finger-ends become expanded, especially laterally.

263. The finger-ends are swollen, and perhaps affected with a sense of tingling, especially in young subjects, in some cases of *Organic Disease of the Liver*, and sometimes in *Tubercular Phthisis Pulmonalis;* and in the latter disease they become adunque.

264. In *Inflammation of the Bowels*, and in *Cholera*, and *Dysentery*, there is a characteristic tendency to a cold, clammy, and livid state of the surface of the hands, and feet, and of the nose, whilst the pulse is frequent and small.

265. I have already mentioned the tendency to coldness and lividity of the extremities in *Tuberculous Disease of the Mesen-*

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* See Dr. Farre's Essay on Malformations of the Heart, pp. 32, 34.

tery; sometimes the skin is burnt until it becomes brown from the patient's sitting near the fire.

266. There is a loss of temperature in cases of Paralysis, sometimes with lividity and shrinking.

267. In the *action* of the hand and fingers we may frequently observe the expression of pain, of anxiety, or of suffering;—but this subject properly belongs to a subsequent chapter.

CHAPTER V.

ON SOME MORBID CONDITIONS OF THE GENERAL SYSTEM.

268. Before I proceed to notice the symptoms of disease referrible to the functions of the Encephalon, and of the Viscera of the Thorax, and Abdomen, I wish to call the attention of the reader to some morbid affections of the system at large.

269. In the first place, I shall just refer to those various morbid states of the general system denominated *Fever*. But I shall principally, though briefly, notice some other conditions of the system, which have not hitherto obtained the degree of attention they demand, and which may be denominated *the states of Irritation, of Exhaustion, of Erethismus, and of Sinking*.

270. All these morbid states are characterized by affecting *many or all* of the organs and functions of the body at once; although one particular organ frequently suffers much more than the rest.

271. *Continued Fever* is particularly distinguished from *Inflammation* by the characteristic just mentioned, § 270. The contrast has already been drawn between the states of the countenance, of the attitude—including the muscular system,—of the tongue, and of the general surface, in these different affections; and differences not less marked will be observed in the functions of the encephalon, and of the organs of the thorax and abdomen.

272. A similar remark also applies to the dissimilar but characteristic effects of local *Irritation* and *Inflammation* on the general system. These effects, although in general sufficiently distinct, are frequently confounded. How often have I known

that symptom stated as evidence of the existence of inflammatory action, which, in fact, was connected with irritation, and with nothing so remotely as inflammation!

273. It is, perhaps, of still greater moment to observe that some affections of the system in general, resembling, and often mistaken for, local inflammation and effects symptomatic of inflammation, are, in fact, effects of *Exhaustion!* The mistake, in both these cases, is full of danger; the investigation of the diagnosis is therefore of the utmost importance.

274. It is also a remarkable circumstance, as I shall observe hereafter, that the phenomena and effects of Exhaustion are *extremely similar* to those of *Erethismus*, and especially of the *Erethismus Mercurialis*.

275. Lastly, there is a state of constitutional affection which may be termed the state of *Sinking*, which occurs in various diseases, and is characterized frequently by inducing false appearances of amendment, dissolving as it were the series of morbid actions, and, in a certain sense, curing the disease; but subsequently leading to sudden, or at least early, dissolution.

276. I shall now proceed to *sketch* the principal phenomena observed in these states of the constitution. It would require too great a space to enter into their *detail;* and it is unnecessary, because I have attempted this, in some measure, in the second volume of this work.

277. The principal sources of *Irritation* to which I shall allude here, are, the presence of indigestible substances in the stomach, and especially *Intestinal Disorder or Load*. The *effects* of these sources of irritation are either *gradual* or *sudden*. The gradual effects are, those observed in the *Dyspepsiæ*, in *Chlorosis*, &c. It is the more sudden effects of intestinal irritation to which I wish to direct the attention in this place.

278. The more sudden effects of *Intestinal Load* and *Irritation* are, acute pain of the head, of the side, of the loins, of the iliac region, or of some other part of the abdomen; attacks of vertigo, of dyspnœa, of palpitation, fainting or feeling of dissolution, of vomiting, and of hickup; there are often anx-

iety and distress; and there are severe rigors, followed by great febrile heat, jactitation, and flushing. The attack is apt to be mistaken for a disease of the organ principally affected, and bleeding is injuriously prescribed when enemata and purgative medicines are the only remedies. The effects of intestinal irritation are particularly apt to occur after any exertion or agitation, after the pain and fatigue of delivery—and especially when this cause is conjoined with any cause of exhaustion, as misapplied or undue bloodletting, hæmorrhagy, or purging,—and in *the course of diseases;* and I am persuaded that their influence in these circumstances is still only half apprehended.

279. The principal sources of *Exhaustion* are undue bloodletting, and uterine hæmorrhagy, especially when they occur with intestinal irritation,—hypercatharsis, and diarrhœa. The effects of exhaustion may be referred to the head, heart, the viscera of the thorax and of the abdomen, and the muscular system. The symptoms which affect the *head* are—severe pain; beating and throbbing; rushing, or cracking noises; vertigo, or turning round of the room, especially on raising the head, or assuming the erect position; intolerance of light, and of sound; wakefulness; starting during sleep; awaking hurried and alarmed, with faintness, palpitation, feeling of sinking, of impending dissolution, &c.; being overcome by noise, disturbance, or thinking even; and delirium. The *heart* is, in different cases, affected with palpitation, fluttering, irregular and feeble action; there are beating and throbbing of the carotids, and sometimes even of the abdominal aorta; a frequent, bounding, and sometimes irregular *pulse;* faintishness or fainting, urgent demand for the smelling-bottle, fresh air, fanning, bathing of the temples; feeling of impending dissolution; incapability of bearing the erect position, and sometimes early fainting from the use of the lancet. The *respiration* is affected in different cases, with panting, hurry, sighing, great heaving, gasping, blowing, moaning, catching, &c. and, as has been stated, with urgent demand for fresh air. There is sometimes a sense of great and alarming *oppression* about the *chest.* There is in some cases an *Irritative Cough,*—in violent fits,—or in the form of continual hacking; this cough appears to

originate in the larynx or trachea. The *stomach* is liable to become affected with irritability, sickness, retching, vomiting, hickup, and eructation; the *bowels* with constipation, or diarrhœa, pain, flatus, distension, &c. There are very frequently urgent restlessness, tossing about, and jactitation. In some cases, various *Spasmodic Affections* have occurred. We have often to combat the effects of exhaustion in the *puerperal state*, and in cases in which bloodletting has been improperly employed for diseases not inflammatory, or too lavishly in cases of inflammation.

280. There is an extraordinary similarity, as I have already observed, between the effects of exhaustion, as just noticed, and the symptoms of the disease termed *Erethismus Mercurialis*, so well described by Mr. J. Pearson,* and so painfully experienced, and so amply and accurately detailed, by the late Dr. Bateman.† The descriptions of these authors do not, however, enumerate the affections of the *head;* otherwise they would be almost identical with that of exhaustion just given: disturbed sleep, hurried wakings, palpitation, languor, fainting, feeling of impending dissolution, want of air, fits of coughing, and of retching, &c. occur in both of these morbid states, and *sudden and unexpected death* from muscular effort has *alike* terminated the patient's sufferings.

281. The morbid effects of *digitalis*, and of some other vegetable remedies, are also not dissimilar from those of Exhaustion and Erethismus.

282. The constitutional symptoms in some cases of local disease, as in the *Phagedenic and Slonghing Ulcers*, appear also to partake of the characters of Erethismus.

283. The state of Sinking occurs under very different circumstances, and accordingly presents very dissimilar phenomena. It occurs sometimes as a gradual and simple feebleness of the brain, decline and cessation of the functions of circulation, and of respiration, as in cases of dissolution in very advanced age: at other times it takes place with the

* Observations on Lues Venerea, 2d ed. chap. xii.

† The Medico-Chirurgical Transactions, vol. ix, p. 220.

more active symptoms of inquietude and jactitation, catching respiration, hickup, &c.: sometimes it has the remarkable effect of dissolving the chain of morbid actions and sensations constituting the disease under which the patient has labored, and of presenting to his friends, and perhaps to his unwary physician, the appearance of amendment, when life is soon to terminate in an unexpected dissolution: lastly, the appearances of sinking quickly follow the accession of gangrene.

284. The gradual decline of the powers and functions of the heart and of the respiration scarcely requires any description: there are dozing, and insensibility to external impressions; the breathing becomes irregular; there is a collection of phlegm in the trachea or larynx, with cough, rattling, and hoarseness; the powers of the bladder are often impaired, with retention of urine; the pulse becomes small and feeble, and the extremities, and the nose and cheeks, cold.

285. In the second form of sinking, § 283, there are constant restlessness, with throwing about of the arms, and throwing off of the bed-clothes, delirium or incoherency of mind, catching sighing, or gasping breathing; a frequent, small, and perhaps intermittent pulse: hickup; an indescribable feeling of approaching dissolution; a constant necessity for the windows to be opened, and for the fan, and sal volatile, &c.; the countenance becomes pallid and sunk, and, with the extremities, cold, clammy, and perhaps livid—especially the prolabia.

286. In the third case, § 383, the pain and symptoms of the disease often cease, and the patient has even got up or enjoyed sleep, and yet dissolution has been at hand,—the pulse perhaps suddenly becoming very frequent and the extremities cold, pale, livid, and clammy. This phenomenon is, I think, most frequently observed in cases of *Inflammation and other Diseases of the Intestines*, as I had remarked long ago.* It also occurs in other states of the disease;—delirium, cough, and pain have ceased, and suppression of urine has yielded, under the influence of the state of sinking.

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* See the former edition of the Diagnosis, Part I, p. 47. See also Dr. Abercrombie's paper in the Ed. Journal, vol. xvi, p. 22, 185.

287. That extraordinary man, Mr. J. Hunter, had accurately observed the state of sinking, and has described it under the term *dissolution*.* "The first symptoms," he observes, "are those of the stomach, which produce shivering: vomiting immediately follows, if not an immediate attendant; there is great oppression and anxiety, the persons conceiving they must die. There is a small quick pulse, with every sign of dissolution in the countenance; as it arises with the symptoms of death, its termination is pretty quick." "I have seen dying people whose pulse was full and strong as usual on the day previous to their death, but it has sunk almost at once, and then become extremely quick, with a thrill: on such occasions it shall rise again, making a strong effort, and, after a short time, a moisture shall probably come on the skin, which shall in this state of pulse be warm; but, upon the sinking of the pulse, shall become cold and clammy: breathing shall become very imperfect, almost like short catchings, and the person shall soon die." "It would appear in many cases, that disease has produced such weakness at last as to destroy itself: we shall even see the symptoms, or consequences of disease, get well before death." Sir Henry Halford has also noticed this subject in a late paper published in the Transactions of the College of Physicians,† and has applied it to the *Prognosis* of diseases.

288. The symptoms of sinking in cases of *Gangrene* are familiar to every observer.

289. From the preceding observations it will appear that there is a similarity in the symptoms attending intestinal irritation, exhaustion from loss of blood, the erethismus mercurialis, the morbific effects of digitalis and other poisonous vegetables, sinking, and dissolution, which is really remarkable. It is a question of great importance how far the existence of one of these states tends to the superinduction of another:—the effects of exhaustion are certainly very apt to supervene in cases of intestinal irritation, and are far less liable to occur, from the same application of its causes, during the existence of

* Hunter on Inflammation, Part II, chap. ix, sect. 3. † Vol. vi, Art. 15.

internal inflammation; a given degree of intestinal irritation, on the other hand, produces unusual effects in cases of exhaustion. I do not know whether the same relation exists between irritation or exhaustion, and the erethismus of mercury or of digitalis.

290. The symptoms of *Irritation* or of *Exhaustion* are not only particularly apt to *supervene* when the cause of the other state respectively co-exists, but it appears to me that the *causes* of one state are also apt to *induce* those of the other. Thus the state of intestinal disorder and irritation, at least, is very liable to steal on in cases of exhaustion from loss of blood; and when it exists primarily, it is extremely apt to induce diarrhœa, and even some kinds of hæmorrhagy, as epistaxis,—hæmatemesis, and melæna,—and even uterine hæmorrhagy or discharge.

291. When the state of *Exhaustion* terminates fatally, it is either by *sudden death*, or by more or less *gradually* passing into that of *Sinking*. Sudden death is apt to occur from any muscular or bodily effort in a change of the position; one patient rose up to make water, sank down and soon afterwards expired.—The transition of the state of exhaustion into that of sinking, I have an opportunity of witnessing at the moment of writing these lines:—great pain of the head, with beating, throbbing of the carotids, agitation from sudden noises, as knocks at the door, violent palpitation of the heart, with fulness and bounding of the pulse, alarm and hurry on awaking, &c. have gradually subsided and passed into a tendency to doze, first with snoring, then with blowing-up of the cheeks and lips, and moaning; slight ruttling or crepitus heard in the trachea and bronchia during respiration, becoming gradually augmented;—slight, catching, laryngal cough, especially when asleep, gradually increasing and becoming painful and almost incessant, but afterwards almost ceasing; oppression in breathing, with blowing through the mouth and lips, the nostrils being very acute, and dilated below and drawn in above the lobes; much flatulency;—at length the fæces are passed at each attempt to void urine, of which there may be retention or involuntary flow, conjointly or separately. The countenance

is pallid and sunk, the features acute, there is much inquietude, sometimes jactitation, and delirium, especially on awaking, and, to employ the patient's own expression, '*such a dying feel.*'

292. The subjects sketched in this chapter, I do not hesitate to say, are of an importance quite stupendous. I should not, however, have used so strong a term, or have devoted so much space to them, did I not consider it an imperative duty to call the attention of the profession to them in the most earnest manner of which I am capable.

CHAPTER VI.

ON THE MORBID STATES OF THE FUNCTIONS OF THE BRAIN.

293. The considerations of the morbid affections of the functions of the Brain embraces a view of the derangements observed in *its energies in general, the sleep, the mental faculties and the temper, the senses and sensations, and the motions—voluntary, functional, and sphincter.*

294. It is extraordinary that the *energies* of the brain should become affected in a very similar manner from the two opposite states of *undue action* or *fulness*, and of *depletion* of that organ. Stupor and morbid obtuseness of the nerves and senses, on one hand, and delirium, and morbid sensibility, on the other, occur alike, varied only in form and degree, in each of these states of the encephalon; and the remark equally applies to the function of respiration as influenced by these different and opposite conditions of the brain; indeed, the affections of the respiration just described as obtaining in the state of sinking from exhaustion, § 291, bore the most marked *resemblance* to those observed in apoplexy, the difference being chiefly observed in the state of the countenance, general surface, and pulse, and in the *degree* of the mental stupor.*

295. *Augmented energy* of the brain, denoted by delirium and augmented sensibilities, occurs in cases of *Fever*, and of

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* A similar remark is made by Dr. Percival in relation to the opposite states of congestion and collapse of the brain, in his interesting Essay on Typhus Fever. He observes, "in truth, the state of congestion and the state of collapse, which resemble each other both in vascular and sensorial appearances, deserve a fuller comparison than has yet been made of their common character."—p. 69.

Irritation, and in the opposite states of this organ observed in *Inflammation and Exhaustion.*

296. *Diminished energy* of the brain, on the other hand, occurs in *Apoplexy* and in the state of *Sinking* from exhaustion; in both cases there are stupor or dozing, ruttling in the breathing from defective absorption of the mucus of the bronchia, oppressed and labored respiration, snoring, blowing-up of the cheeks and lips, defective power of the sphincters, &c.

297. In regard to *Sleep* we observe, in different morbid affections, the opposite states of *lethargy* and *wakefulness*, the occurrence of *frightful dreams and hurried wakings*, and various *effects* on the functions of the *skin*, of the *heart*, &c.

298. The return of sleep must, in general, be deemed a good sign; but a *longer sleep* than usual is frequently an effect of exhaustion, and the patient awakes from it '*overcome;*' *dozing* and sleep again are frequently observed in the state of *sinking*, and then only give rise to a false hope of amendment.

299. Drowsiness is frequently an antecedent sign of *Apoplexy;* it may forebode *Icterus*, and it may arise from a disordered state of the stomach. It is, in other cases, and especially in the diseases of children, one of the first symptoms to awake alarm and fear of disease within the head.

300. Profound sleep, which has received various names, as somnolentia, coma, lethargy, veternus, cataphora, carus, &c. according to its degree, usually denotes a state of oppression of the brain from vascular fulness, effusion upon the membranes, &c. and occurs as a *symptom* in *Apoplexy* and *Organic Disease of the Brain* in general;—as a complication in *Typhus and other Fevers;*—as an *effect* of the convulsive efforts in *Epilepsy, Puerperal Convulsion, Fits, Hysteria, the Hooping Cough, &c.*

301. Heaviness for sleep also occurs, as has been stated already, in a state of the brain the opposite to fulness, and is observed in some cases of exhaustion, in the state of sinking, and in syncope.

302. *Wakefulness* and *restlessness* occur in *Mania*, in

Puerperal Delirium, in the *Delirium Tremens*, &c. in connexion with delirium, as their names import; but they also arise, independently of delirium, in cases of great *irritation* or *exhaustion*, especially *intestinal* irritation and exhaustion from *loss of blood;* the same observation applies to the *Erethismus Mercurialis*,* which, as I have had occasion to remark before, resembles, in so many particulars, the morbid effects of the causes just mentioned.

303. But, perhaps, the most extraordinary phenomena belonging *alike* to these three morbid affections, in connexion with sleep, are *frightful dreams* and *hurried wakings;* these circumstances sometimes occur in the form of *incubus*, sometimes with great *palpitation* of the heart and hurry, and sometimes with the *feeling of impending dissolution*.

304. There is often much starting in the sleep in cases of indigestion; and children frequently start, get up in bed or even out of bed, or perhaps scream violently and are affected with fright or temporary delirium, from this cause.

305. Hurried wakings, with a sense of suffocation, or of impending dissolution, also occur in *Organic Disease of the Heart;* the patient, agitated and alarmed, hastens to the open window for air.

306. Sleep would appear to exercise a peculiar influence over the circulation: many children perspire profusely during sleep, especially in a state of weakness; sleep often induces flushing during the progress of febrile complaints; and in cases of *Hectic, or Tubercles*, the last morning sleep, as I have already observed, § 230, is particularly apt to be attended with profuse perspiration, to prevent which many patients purposely keep themselves awake.

307. The *Mental Faculties* are affected in various ways,—by *delirium, stupor, imbecility, unfounded hope or despondency;* &c.

308. Delirium occurs in *Fevers*, in most violent affections general and local; and in *Inflammation or Disease of the*

* See Dr. Bateman's case, Med. Chir. Trans. vol. ix, p. 223.

Brain. In the former cases, delirium is often long continued; in the latter, it usually earlier or later passes into stupor, as increased action induces effusion. Delirium is also observed in some cases of *Exhaustion with re-action;* and, in its low and muttering form, it occurs in the state of *sinking.*

309. Not only fever, and any severe derangement of the general health, but a violent accident, a severe operation, the occurrence of *gangrene,* &c. are generally attended by delirium.

310. It is scarcely necessary to allude to the occurrence of this symptom as a frequent puerperal affection, and as the effect of habits of drinking spirits. In the former case it is frequently an effect of the loss of blood.

311. Stupor also occurs in *Fevers,* but especially in *Apoplexy,* and towards the termination of all affections of the brain inducing compression of that organ.

312. Imbecility of mind, with talkativeness, or with lethargy, is not unfrequent in old age. In these cases there is often a state of chronic inflammation of the substance or of the membranes of the brain. Paralysis is apt to be superadded to the other symptoms.

313. After attacks of *Apoplexy,* a state of mental imbecility often remains, with loss of memory, unmeaning laughter, proneness to tears, &c.

314. The temper of the patient is singularly modified by different disorders and diseases. The state of despondency in cases of indigestion forms a remarkable contrast with that of hopefulness in phthisis pulmonalis and other serious organic diseases.

315. Despondency on the part of the patient may, however, excite a well-founded alarm in cases of great debility and inquietude.

316. In cases of serious and fatal disease, and especially, I think, in diseases of the intestines, the patient frequently expresses his conviction of an approaching dissolution—"tanquam conscia foret natura, vitam ad finem properare."

317. The *Senses and Sensations* become preternaturally acute or defective:—

318. Acuteness of hearing and of sight, and intolerance of sound and of light, are usual symptoms in the *dawn* of *Inflammation of the Brain*, and frequently occur in *Idiopathic Fevers:* but they occur in the most remarkable degree as effects of *Intestinal Irritation*, and of *Exhaustion*.

319. The physician is often called to cases in the following circumstances:—*Straw* is spread before the door, the *knocker* is tied, the *lights* are screened, or the *room* is darkened, and every source of *noise* or *disturbance* is carefully avoided. The cases in which these precautions are necessary are principally those of *Intestinal Irritation* and *Exhaustion;* but they are also frequently necessary in the *Acute Synochus*, and in some forms of *Puerperal Affection;* and the precautions respecting noise and disturbance are sometimes requisite in *Diseases of the Heart*, not from increased susceptibility of the nervous system, but of the action of the heart itself.

320. The sense of hearing becomes defective and obtuse in some cases of *Typhus Fever;* defective vision is a usual occurrence in *Diseases of the Brain;* and torpor, or defective touch, is a usual precursor or consequence of *Apoplexy* or *Paralysis*, and occurs in some instances of *Hysteria*. I need scarcely allude to the *flocci volitantes*, *tinnitus*, the *epileptic aura*, &c.

321. Under the head of *deranged Sensations* may be noticed *pain* and *vertigo*. Pain of the head in the recumbent, and vertigo in the erect posture, are usual and early symptoms in *Typhus Fever* and *Acute Synochus*,—in cases of *Intestinal Irritation*, and of *Exhaustion*,—and in the *Dyspepsiæ;*—and they are frequently precursory and admonitory signs of *Apoplexy* or *Paralysis*.

322. Pain of the head, *alone*, is usually amongst the first symptoms of *Inflammation of the Brain*. Severe pain of the head occurs in the *Dyspepsiæ*, and especially in *Chlorosis;* it is then attended by the *other* symptoms of those affections; but it is frequently so severe as to lead to the erroneous employment of the lancet.

323. I need scarcely advert to the frequent occurrence of headache and vertigo in *Hysteria*, *Hypochondriasis*, *Asthenia*,

Syncope, &c. It is important, however, to remark, that they rarely occur in local or organic diseases, except those of the head itself.

324. *Intermittent headache* constitutes a peculiar affection, and is removed by the arsenic.

325. The sense of an iron finger on some part of the head, or of an iron hoop round the head, is an effect of exhaustion from loss of blood.

CHAPTER VII.

ON THE MORBID AFFECTIONS OF THE FUNCTION OF RESPIRATION.

326. In treating of the morbid affections of the function of respiration, I shall attempt a description of the different *kinds of dyspnœa, of cough and expectoration, of the effects of full inspiration and expiration, of the affections of the voice and articulation,* &c.

327. Healthy *Respiration* is performed with ease and freedom, and without the aid of the auxiliary muscles, in any of the usual positions of the body. It is effected by a nearly equal elevation of the ribs and depression of the diaphragm, except in females, in whom the thorax is observed to move more than in men; each side of the thorax moves also in an equal degree; and inspiration and expiration occupy nearly equal spaces of time.

328. The *kinds of Dyspnœa,* and the other morbid affections of the *act of respiration,* are so numerous, that it would be difficult to discuss them fully. In treating the subject, I shall proceed on the *practical* principle pointed out § 26, and describe the different modifications of the respiration in reference to *particular diseases.*

329. In the *Acute Synochus* there is generally a little hurry in breathing, and sometimes a degree of anxiety and of panting.

330. The respiration in *Typhus Fever* is generally anxious and tremulous; when the fever is complicated with stupor, the respiration becomes still more affected—frequently deep and sibilous, irregular and unequal, still more tremulous, and sometimes each inspiration is begun by the diaphragm and

completed by the thorax; in the other complications of this fever the respiration is variously affected according to their seat and nature.

331. In *Apoplexy* the respiration becomes irregular, slow, deep, frequently suspended, and sighing, with ruttling or stertor, or blowing of the cheeks and lips, or with catching in the larynx. M. Serres observes that, when there is *Paralysis*, the two sides of the thorax are moved unequally, the muscles of the paralytic side having lost their power.*

332. I have already noticed the similarity which obtains between the breathing in apoplexy and that observed in the state of *Sinking*, § 294.

333. In other *Diseases of the Head* with congestion or compression, as *Inflammation* or *Hydrencephalus*, the breathing gradually becomes irregular and unequal, with alternate suspension and sighing; the *duration* of the interruption appears sometimes to be commensurate with the *degree* of oppression of the brain.

334. In *Inflammation of the Chest, with acute Pain*, the respiration is sometimes performed exclusively by the diaphragm, the chest or part affected being quite motionless; the alternate movements of the respiration are also short, cautious, and suppressed. This peculiarity of the breathing is proportionate to, and varies with, the degree of acuteness of the pain.

335. The *part* affected is sometimes carefully kept *unmoved*, the rest of the thorax or abdomen being moved as usual. This is observed in ordinary respiration, still more in a deep inspiration: the patient *can* draw a deep breath without causing pain; but if this be done *incautiously*, pain is immediately induced. The patient is frequently awoke from sleep by this cause: the caution ceases, perhaps a deep sigh is drawn, and acute pain being induced, the patient starts and awakes.

336. In *Inflammation within the Abdomen, with acute Pain*, the respiration is, on the contrary, performed principally and

* Annuaire Medico-Chirurgical, 1819.

often exclusively, by the chest, the abdomen remaining unmoved. This peculiarity of the breathing may be distinctly observed by looking on the chest and binding the bed-clothes tight over the abdomen. The respiration has sometimes the appearance of *heaving* of the chest: every movement of the diaphragm is cautiously avoided. In this disease the patient is also frequently observed to rest, for a few seconds, on a full breath. The abdomen begins to move as the pain diminishes, whether from a *mitigation* of the disease, from *sinking*, or from *gangrene*.

337. By an attentive observation of the modifications of the respiration, inflammation of the pleura is distinguished from inflammation of the peritonæum covering the liver, &c. The very *part* inflamed is frequently ascertainable by a simple but careful inspection. Nothing is more interesting than this exercise of the faculty of pure observation. The thorax and abdomen should be exposed and *watched*.

338. Inflammatory pain within the abdomen is, in the same manner, distinguished from spasm or colic, in which there is a state of breathing altogether *incompatible* with inflammation attended with acute pain and tenderness.

339. In *Inflammation of the Lungs* the respiration is characterized by labor, and by crepitus heard on applying the ear to the chest: these peculiarities are augmented as congestion and hepatization take place; and when much mucus is secreted, bronchial rattle is superadded. In chronic cases of *Pleuropneumonia* the shoulders are elevated, the pomum adami drawn downwards, and the lower part of the sternum retracted towards the spine, on each inspiration—the abdomen being, at the moment, suddenly protruded, and the upper part of the chest raised.

340. In *Tuberculous Phthisis Pulmonalis* an *effort* is *early* visible in the respiration, and its *effect* seen in a movement of the alæ nasi; the breathing is also *early* observed to be short on any muscular exertion, especially on going up stairs; at a late period of the disease there are generally constant labor and shortness of breathing, and sometimes attacks of suffocative dyspnœa.

341. On examining the chest in a recumbent position, it will frequently be found that its motions are not free, and that respiration is more than usually performed by the diaphragm. Sometimes one side of the chest moves more than the other.

342. In the later stages of *Hydrothorax* there is, in connexion with the peculiar state of the attitude, § 146, a characteristic affection of the respiration:—the acts of respiration are performed with very unusual degrees of labor; inspiration is often quick and sudden, effected with great effort, principally or exclusively by an elevation of the thorax, and afterwards by a forcible contraction of the auxiliary muscles of respiration; in expiration these movements are reversed, the chest appears to *fall* spontaneously and without effort; the action of the auxiliary muscles—the sterno-mastoids, the pectorals, &c. is seen or may be felt on applying the finger; the head is often moved, and the chest has, in protracted cases, the appearance of being unusually *high*.

343. A state of the respiration, not dissimilar from that just described, is observed in cases of complicated disease in the thorax and in the abdomen—the latter giving origin to what may be termed the *thoracic* breathing, and to a suppression of the action of the diaphragm. A painful affection of the upper portion of the peritonæum would be apt to induce the state of breathing observed in *Hydrothorax;* whilst the latter affection, by pressing the diaphragm downwards, has often been mistaken for *Disease of the Liver*.*

344. In *Diseases of the Heart* the dyspnœa is generally first experienced, and is ever particularly aggravated by any particular muscular exertion or mental emotion, and especially on going up stairs: it appears, therefore, to be particularly liable to recur in paroxysms, and it is thus distinguished, in some degree, from the dyspnœa of hydrothorax, which increases progressively perhaps, but more uniformly and slowly.

345. Besides the kinds of dyspnœa already described, there

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* See Portal's Memoires sur plusieurs Maladies.

are others which require to be accurately distinguished from them :—

346. In the *Acute Dyspepsia*, and in the more accidental cases of indigestion, a paroxysm of dyspnœa often takes place, and appears to me to constitute, in the greater number of instances, the *first* attack of *true Asthma*.

347. The dyspnœa of *Asthma* is extremely peculiar :—there are great anxiety and almost gasping ; the inspiration is quick, the expiration longer, labored, and wheezing. In *extreme* cases, the chest is raised, the scrobiculus cordis retracted, and the abdomen protruded, with abruptness, on inspiration : expiration reverses these movements, and is attended with labor and wheezing. In *protracted* cases a state of *constant* dyspnœa is observed, denoted by labor and wheezing, with a peculiar cough. At length, organic *disease* of the heart and of the lungs is superadded to the primary state of *disorder* of function.

348. In the other forms of *Dyspepsia*, and especially in *Chlorosis*, paroxysms of *Hysteric* dyspnœa are observed, frequently attended with pain and tenderness of the chest or of the abdomen ; it combines a degree of *hurry* and *heaving* in the respiration altogether *incompatible* with inflammatory pain. With this state of the respiration there is often a total loss of voice, and occasionally the cough and crowing of *Croup*.

349. In the cases of *Intestinal Irritation*, and in those of *Exhaustion* from loss of blood, or other causes, the respiration becomes affected with hurry, panting, sighing, heaving, moaning, labor, and gasping, and there is an urgent demand for the fan and the fresh air.

350. As these states pass into that of *Sinking*, gasping, catching, laryngal cough, snoring, blowing, slight ruttling in the larynx or trachea, &c. supervene and increase as the energies of the brain, heart, and lungs decline. There are three symptoms connected with the *Exhaustion*, which denote the *Sinking* state, and which are consequently of the most unfavorable omen :—the *first* is an audible, hurried breathing ; the *second* gasping, however slight, with descent

of the pomum adami; the *third*, a slight *crepitus* heard in the breathing, with, or even without, the stethoscope.

351. A similar state of catching in the respiration occurs, as a *fatal symptom*, towards the termination of many diseases.

352. *Rattle* occurs not only in *Apoplexy*, *Bronchitis*, &c. but also in the last and fatal stages of *debility* and *sinking*, and of many diseases.

353. The different modifications of the breathing, which have been described, might be designated and distinguished by some epithet chosen from their most prominent character. But I have avoided this from the fear of fixing the attention too exclusively on one point, which, however prominent, still only obtains in common and in connection with others little less remarkable.

354. There is one remark respecting the respiration which I think important. In some instances of *Chronic Inflammation of the Larynx* or *Trachea*, I have observed that the patient is incapable of performing the action of snuffing-up the nostrils so as to draw in the alæ nasi;* this was not observed in some cases of *Ulcer of the Larynx*. The remark may not only enable us to determine the *degree*, but the *diagnosis* of the morbid effects of *Laryngitis*.

355. The respiration is *tracheal* or croupy in *Inflammation of the Larynx*, and in cases in which a tumor, as *Aneurysm* or *Scirrhus*, presses upon the larynx. The latter case is often distinguishable by the addition of dysphagia to the dyspnœa, or the tumor may be obvious to the eye or touch.

356. In *Ulcer* of the larynx the sound of respiration is rather hoarse and husky than croupy.

357. I now proceed to notice some of the more remarkable *varieties of Cough*:

358. This symptom is modified by the *seat, and nature, of the disease*, and, in the same disease, by the state of *pain*, or of *expectoration*, and by the *strength of the patient*.

359. The *laryngal* cough often occurs in fits, with hoarse-

* See Medico-Chir. Trans. vol. x.

ness and incapability of speaking, and is sometimes so violent as to induce vomiting even. The *tracheal* cough is lower, less violent, and without hoarseness. The *bronchial* is deeper still.

360. By observing the kind of effort, and the particular *character* of the cough, the seat of irritation or disease is often distinctly observed to be in the *larynx*, in the *trachea*, in the *bronchia*, or in the *cellular structure* of the lungs.

361. Not only the seat, but the nature of the disease, is frequently ascertained by an attention to the peculiarity of *sound* of the cough. *Ulcer* in the *larynx* induces a very different sound from that of *inflammation* of the same part, the former being hoarse, the latter croupy; the sound of the cough in *Tuberculous Phthisis* is very different from that of *Catarrh* or of some forms of *Bronchitis;* the cough in *Asthma* has a very peculiar *dull* sound; and the sound of the cough, or rather the resounding of the chest on coughing, frequently serves to indicate a healthy state of the lungs and thorax in general, and to distinguish it from various morbid conditions. The presence of mucus or of pus in the bronchial passages also gives a characteristic sound to the cough.

362. The *effort* of coughing is sometimes *repressed*. This occurs in *Acute Inflammations* of the *Pleura*, of the *Peritonæum*, &c. in *Rheumatic* and *Hysteric* affections of the muscles about the thorax; &c.

363. Sometimes the cough assumes a *spasmodic* character. This occurs in *Pertussis*, *Hysteria*, in cases of *Intestinal Irritation*, or of irritation about the *larynx* or *trachea;* &c.*

364. In other cases the coughing is *continued*, but not sufficiently violent to be termed spasmodic. Cough of this character is observed in some cases of less severe irritation in the intestinal canal, or in the larynx or trachea; it occurs also from circumstances of *Exhaustion* and *Sinking*, and appears to originate in the larynx; it is observed in some instances of

* "Hujus generis tusses, ut et illæ quæ a distillatione nascuntur, vehementiores sunt, et magis sonoræ, quam quæ fiunt ex tabe, sive incipiente, seu deplorata."—Heb. Com. cap. xcii.

Bronchitis, and of *Asthma*, and frequently when the strength of the patient is too much reduced to enable him to expectorate.

365. In *Catarrh* the cough is often *violent*, and there is an abundant resonance of the thorax: in *Tuberculous Phthisis* the cough is less frequently violent; but when it is, the sound is flattened, and as it were tearing.† The cough is generally violent with a thin and scanty expectoration, and becomes easier as the expectoration becomes more viscid and copious.

366. Cough may be said to be a *symptom* in all cases. But it by no means always denotes an affection of the organs of respiration originally. Perhaps no circumstance, however, illustrates better the transition of a sympathetic and functional affection into one of real disease. In some instances, a disordered state of the stomach and digestive organs induces cough: this state of things, if neglected, leads to a copious secretion from the mucous surface of the air passages, and ultimately to actual disease.

367. In some instances, a state of *inanition* of the stomach, like other circumstances of exhaustion, induces cough. One patient termed such a cough a "*want-cough*," and always removed it by eating. I have already alluded, § 367, to the catching, laryngal cough observed in the state of *Sinking*.

368. Every one must have remarked the peculiarity of the cough which affects very old persons, and especially old asthmatics.

369. With the consideration of the different kinds of cough is naturally conjoined that of the varieties observed in the *Expectoration:*

370. *Mucous* expectoration appears to arise from various sources of *inflammation* and *irritation* of the bronchial membrane. It occurs in *Bronchitis*, frequently from the effects of *intestinal irritation* long continued, or from the *irritation* of a *diseased Liver*, or of *Tubercles in the Lungs* in a quiescent state, or of other sources of irritation, near or remote. Slight mucous expectoration is frequently observed in protracted cases

† Heberdeni Com. cap. xcii.

of *Exhaustion*, combined, of course, with cough, and with rattle.

371. In some instances I have observed a copious mucous expectoration *alternate* with one more puriform, on different days,—even in *Tuberculous Phthisis*.

372. It frequently happens that large globules of puriform expectoration are observed to float amidst a fluid of a more aqueous or mucous appearance,—especially in *Tuberculous Phthisis*.

373. In all these cases an expectoration of *blood* is frequently observed. In many, especially in *Bronchitis*, this appearance gradually declines without serious consequence. It is generally, however, of a most unfavorable augury,* even when it appears merely in dots or streaks; and the more so, I think, as the previous disease is more protracted. The expectoration of blood is also very alarming when it occurs without previous symptoms, and without muscular effort.

374. Besides the mucous, puriform, and bloody expectoration, there is an appearance, occasionally observed, of a serious nature: it is that of a scanty, and, if the term may be allowed, friable, and whitish matter, easily divided with a probe, and sinking in water: it occurs in some cases of *Tuberculous Phthisis*.

375. The expectoration in *Pneumonia* is frequently quite distinctive and pathognomonic of this disease: it consists of a transparent fluid, reddish from the intimate admixture of blood, sometimes so tenacious as to admit of turning the vessel, in which it is received, upside down, without flowing out: at first there may be the expectoration of a little mucus; afterwards, the *degree* of tenacity and red color frequently denotes the degree of violence of the disease.

376. There is an interesting experiment proposed by the late Dr. Young as distinctive of pus from mucus, which has not sufficiently arrested the attention of the profession. It is an

* Heberdeni Com. cap. lxxxiv.

experiment of the simplest kind, and may have many useful applications in practice.

377. If a minute drop of any fluid, containing globules, be placed between two portions of plate glass, and if we look through it, placed near the eye, at a distant candle, we observe the most distinct and interesting phenomena of circles colored like the rainbow. Blood and pus present this phenomenon; mucus does not. We have, therefore, a diagnostic between mere laryngitis and bronchitis and mucous discharges from the stomach, rectum, kidney, bladder, or uterus, and *Ulcer* in these several organs: and it remains, perhaps, to be determined whether tuberculous, and encephaloid, and melanous matter, possess globules, and present the phenomenon dependent upon them.

378. Let the experiment be performed with a minute drop of blood, diluted with water, and placed between two portions of glass; it may lead to an inquiry of great interest and importance.

379. I proceed to make a few remarks on the effects of a *Full Inspiration and Expiration* on the part of the patient.

380. The former is useful in the detection of slight attacks of *Inflammation* of the *Pleura*, or of the *Peritonæum*, and in determining, by comparison at different periods, its increase or decline.

381. A deep inspiration is *apt* to induce cough, when the structure of the lungs is affected with inflammation or disease. But this morbid state is more distinctly ascertained by an attention to the effects of a *full expiration*.

382. In many cases of morbid affection of the lungs, indeed, in which a deep inspiration induces neither cough nor other inconvenience, a full expiration not only occasions cough, but other effects which vary according to the *nature* of the pulmonary disease. In *Inflammation of the Bronchia*, or of the *Lungs*, in *Tuberculous Phthisis*, &c. cough and rattle are induced. These effects are also observed in some cases of chronic affections of the bronchia, arising either from slight but protracted inflammation, or from disorder of the digestive organs: in cases of *Asthma* too, in which the ordinary breath-

ing, or a deep inspiration even, is unattended with any peculiarity, a full expiration excites both cough and the wheezing sound so characteristic of this affection.

383. It is particularly useful to watch the effects of a full expiration in the slighter affections of the pulmonary structure, and in the decline of pulmonary disease.

384. The modifications of the *Voice and Articulation*, as symptoms in diseases, may be considered as denoting—1, the state of *strength, debility, or sinking;* 2, the existence and the kind of *pain* in the chest, abdomen, &c.; 3, some affections of the mouth, palate, throat, nose, &c.

385. The voice is also modified in some cases of *Typhus Fever*, *Cholera Morbus*, and *Dysentery*, in which it is apt to become feeble and *husky;* in *Phthisis* and *Diseases of the Larynx and Trachea*, in which it frequently becomes extremely *hoarse;* and in *Hysteria*, in which it is often suddenly and sometimes long *lost* and inaudible.

386. The articulation is affected by *Paralysis* and *Spasmodic Diseases*, and, like the voice, in cases of great debility.

387. These hints may assist in an examination of the subject, and the reader will find an account of some other affections of the voice in the works of M. Portal.*

* Mémoirs sur plusieurs Maladies, tome i, p. 273; ii, p. 109; iii, 159, 165. Anatomie Medicale, tome iv.

CHAPTER VIII.

ON THE MORBID AFFECTIONS OF THE CIRCULATION.

388. The morbid affections of the function of the Circulation are observed *in the pulse, in the pulsations of the heart, and of the carotids and abdominal aorta, and, sometimes, of the jugular vein, and in the capillary or extreme vessels.*

389. The *varieties in the Pulse* have formed the subject of many and even voluminous works. In the present place, I shall pursue my accustomed plan of noting down those varieties of the pulse which have struck me as being of most *practical importance.*

390. The first point to be noticed in this place is the *frequency* of the pulse :—*

391. I have generally observed that the pulse is much more frequent in the early periods of *Fever* than of *Inflammation.*

392. In Fever with *congestion of the brain* there is frequently an unnatural *slowness* of the pulse.

393. In Fever complicated with *inflammatory* affections, the pulse is, on the contrary, more frequent than in the simpler cases of fever.

394. In *Acute Inflammatory Diseases*, in general, the pulse is usually slightly frequent and hard ; but it is modified by various circumstances, of which the principal are *the part affected, the stage of the disease, and the treatment.*

395. In *Diseases of the Brain* the pulse is often very peculiar and characteristic. In the first stage of *Inflammation* of this organ, the pulse is *frequent*, and sometimes of *unequal*

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* See the Trans. of the Col. of Phys. vol. ii, p. 18.

frequency: as effusion and compression take place, the pulse becomes *slow*, and it attains a still greater frequency than before towards the conclusion of the disease. In *Apoplexy* the pulse is slow, and often irregular in the beginning, and more frequent in the later periods.

396. In *Inflammation of the Bowels* I have known the pulse to remain of nearly its natural frequency until the stage of *sinking* has taken place; so that the pulse must be regarded as a very unsafe guide in this morbid affection: it is more usually, however, of increased but variable frequency, and small and feeble.

397. In *Pleuritis and Peritonitis*, and most other inflammatory diseases, the pulse is generally somewhat increased in frequency.

398. The pulse is generally more frequent as the disease is more advanced, unless its violence has been subdued. The peculiarities in the cases of *Encephalitis* and *Enteritis* have been already noticed. In the later stages of inflammatory diseases the pulse is also apt to become or to remain unnaturally frequent, as an effect of the *loss of blood* from repeated venæsection; it is therefore important to observe every symptom, not to be misled by a continued frequency of the pulse.

399. It is not unusual to observe that, in various diseases, the frequency of the pulse remains when the morbid actions have apparently subsided: in such a case it is necessary to continue our attention, and watch and wait for the diminution of the frequency of the pulse; and, if this event do not take place in a moderate space of time, to ascertain whether the disease be in fact subsided, or only mitigated and pursuing its course in an insidious form. This watching is particularly necessary in cases of *Pleuritis* and *Peritonitis*. Frequency of the pulse is apt to be observed as an effect of *Intestinal Irritation:* in that case, as in *Erethismus* and in *Exhaustion with re-action*, there is also perceptible *palpitation* of the heart. This affords, indeed, a criterion by which such a state of frequency of pulse is distinguished from that observed in *Phthisis* and other organic diseases.

400. Frequency of the pulse is the effect of *repeated blood-*

letting. The first effect of a copious blood-letting is a state of syncope with slowness and feebleness of the pulse: the cumulative effect of repeated bleeding, when there is re-action of the system, is a frequent, full, and throbbing or bounding pulse; but if the powers of the system be broken, the pulse is frequent and feeble, with the other symptoms of the state of sinking already repeatedly noticed. In the case of sinking, the pulse very often retains its frequency until five or ten minutes before the patient expires, when it suddenly falters and soon ceases altogether. It is of the utmost importance to appreciate the effects of loss of blood, and distinguish them from those of the disease, in the course of inflammations. In a case of peritonitis, the pain became mitigated, but the pulse increased from 120 or 130 to 145 or 150. What was the cause of this increase of pulse? The carotids and *afterwards* the aorta were observed to beat, and there was a beating movement of the chest during expiration. I was of opinion that these were the effects of loss of blood; and so it proved: the number of the pulse diminished, but the throb continued for several days longer.

401. I now proceed to remark the degree of frequency of the pulse in morbid affections of a more *chronic* character:—

402. The frequency of the pulse affords an important diagnostic mark of *Disorder of Function* from *Organic Disease*, and of different organic diseases from each other.

403. In all the chronic forms of the *Dyspepsia*, the pulse, *in general*, retains its natural frequency; it is apt, however, to be frequent in the *Acute Dyspepsia;* and it is apt to become frequent in the *later stages* of the *Chronic*, when the affection leads to great loss of flesh, to dropsical affections, or to organic changes; and the case may be considered as assuming an alarming character as the pulse thus becomes unnaturally frequent.

404. Some *Organic Diseases* induce an early and characteristic frequency of the pulse, especially *Tuberculous Phthisis*, *Tuberculous Disease of the Mesentery*, and *Chronic Inflammation of the Pleura* and of the *Peritonæum*.

405. Others often proceed with very little frequency of the

pulse, as some *Organic Diseases of the Liver*, and especially of the *Ovarium*, &c.

406. There is a variety of the pulse which may properly be termed the *nervous;* it consists in great frequency on the first arrival of the physician, which generally subsides during his stay. It is often of importance to observe this peculiarity of the pulse; and, with this view, to wait and count its beats several times during the visit. It is indeed to this state of things that the elegant observations of Celsus particularly apply: he observes, "venis enim maxime credimus, fallacissimæ rei; quia sæpe istæ leniores celerioresve sunt, et ætate, et sexu, et corporum natura: sæpe eas concitat et resolvit sol, et balneum, et exercitatio, et metus, et ira, et quilibet alius animi affectus: adeo ut, cum primum medicus venit, solicitudo ægri dubitantis quomodo illi se habere videatur, eas moveat. Ob quam causam periti medici est non protinus ut venit, apprehendere manu brachium: sed primum residere hilari vultu, percontarique, quemadmodum se habeat; et si quis ejus metus est, eum probabili sermone lenire; tum deinde ejus corpori manum admovere. Quas venas autem conspectus medici movet, quam facile mille res turbant!"*

407. The frequency of the pulse in *Phthisis*, *Mesenteric Disease*, &c. is, on the other hand, permanent, neither easily augmented, nor becoming diminished. I have, indeed, frequently observed nervous excitement to lower the number of the pulse of *Phthisis* for a short space of time.

408. The next peculiarity of the pulse is its state of *irregularity*:—

409. This affection of the pulse occurs principally from *Disease within the Head*, *Disease of the Heart*, and *Disorders of the Digestion*, and from various diseases affecting the respiration, as *Hydrothorax*.

410. In *Inflammation of the Brain* the pulse is often of

* Lib. iii, cap. vi.

unequal frequency;* in cases of *compression*, it is frequently irregular.

411. Irregularity of the pulse is very usual in *Diseases of the Heart*, and especially of its *Valves*: it is sometimes merely *intermittent*, and sometimes extremely *irregular* in its beats, and in its size and force. In these diseases the peculiarity of the pulse is generally *permanent*.

412. Nothing is more common than *occasional* intermittence and irregularity of the pulse from *Indigestion*, and from the various disorders of the bowels, as *Diarrhœa*, &c.

413. *Dyspnœa*, in general, is frequently attended with intermissions in the pulse, probably from its mechanical effect upon the action of the heart. A very deep inspiration and a full expiration have, in some persons, the effect of arresting the action of the heart in a temporary manner. The pulse is, probably from a similar cause, frequently irregular in cases of *Asthma*, or *Hydrothorax*, and in very corpulent persons, an interruption being often observed on inspiration.

414. Irregularity of the pulse is apt to occur in cases of *Erysipelas*, *Gangrene*, &c. in the state of *sinking*, and in the last stages of many diseases.

415. The next peculiarity in the pulse, which I shall notice very briefly, is its state of *fulness* or *smallness*:—

416. The pulse is frequently very full on the attack of *Apoplexy*, but gradually loses this character as it becomes more frequent.

417. In *Organic Disease of the Heart* the pulse is either full or small, according to the nature of the affection. Enlargement of the heart, with *thickening* of its parietes, sometimes induces a full and strong pulse; whilst mere dilatation of the heart is attended with a soft and feebler pulse; and, in some other diseases of this organ, especially of its valves, the pulse becomes very small, and sometimes almost imperceptible.

418. The next morbid affection in which the size of the

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* See Dr. Abercrombie's excellent paper. Ed. Med. Journal, vol. xiv, p. 267.

pulse is peculiar, is *Inflammation of the Intestines*, in which there is a characteristic smallness of the pulse.*

419. In cases of *Exhaustion* with re-action of the system, I have already stated that the pulse is large and bounding: this characteristic ceases as the re-action subsides and the state of *Sinking* occurs.

420. The smallness of the pulse has, in some instances, been so remarkable as to have given origin to the terms "thready" or "wiry."

421. The subject of pulsation of the heart, carotids, abdominal aorta, &c. requires to be noticed in connexion with *Diseases of the Heart*, with the state of *Exhaustion with re-action*, with *Intestinal Irritation*, and, *perhaps*, with some morbid affections of the head.

422. In *Enlargement of the Heart* with thickening of its parietes, the pulsation of the heart is forcible and circumscribed, and attended with pulsation of the carotids and other large arteries. In the case of *Dilatation of the Heart*, with diminished thickness of its parietes, the heart beats more feebly, but its pulsations are heard over a greater extent of surface; the carotids are free from pulsation.

423. But the most extraordinary degree of palpitation and of pulsation of the carotids, and even of the abdominal aorta, is observed in some cases of *Exhaustion from reiterated loss of blood.*

424. Palpitation is a common symptom in cases of *Hysteria* and other nervous disorders; a still more frequent symptom is a feeling of '*fluttering*' at the heart, and in the region of the stomach, and *throbbing* of the temples.

425. In similar cases there is sometimes a preternatural *pulsation in the epigastric region;* Dr. Baillie observes, "it is perhaps difficult to ascertain, in many instances, the cause of this increased pulsation of the aorta in the epigastric region;

* This disease is sometimes fatal in twenty-four hours. This must be by exerting a baneful and depressing influence on the vital powers, independently of the mere interruption of the intestinal functions.

but in most cases it will be found to be connected with an imperfect digestion, and an irritable constitution."

426. A similar pulsation is sometimes the effect of *Aneurysm of the Aorta*, or of a *tumor* situated over the aorta. In this case the general health is unimpaired.

427. Pulsation of the Jugular Veins has been observed in *Hypertrophy* of the *Right Ventricle*.

428. In the *capillary circulation* we are enabled to observe a characteristic symptom of certain diseases, and to ascertain, in some degree, the *powers of the circulation* and *the state of the blood*. We are presented with an opportunity of observing the condition of the capillary circulation by examining the condition of the extremities—the nose, the cheeks, the ears, and the hands and feet, the prolabia and the finger-nails.

429. Some diseases have a peculiar influence over the capillary circulation, inducing coldness and lividity of the extremities. This is particularly observed in some cases of *Enteritis*, of *Cholera Morbus*, and of *Dysentery*,—in the *Acute Dyspepsia*, in *Tuberculous Disease*, &c.

430. In other diseases, the same tendency to coldness of the extreme parts denotes a failure in the general strength of the system, and should be carefully watched. It is to be observed, however, that flushing and heat sometimes occur during a state bordering on that of *Sinking*.

431. In some old persons I have observed a remarkable tendency to lividity of the finger-nails.

432. It appears to me to be from defective powers of the capillary circulation that *cold* is so difficultly borne by infants and very old persons.

433. Whilst a livid hue of the prolabia and nails denotes feebleness of the circulation, an exanguious paleness is the frequent attendant on an *aqueous state of the blood*, or the effect of some morbid affections, as *Chlorosis*, *Purpura*, &c. or of considerable *loss of blood*.

434. There is, in the capillary circulation, a peculiarity which may be denominated the *tendency* to *hæmorrhagy*. This state is sometimes the effect of intestinal disorder and irritation, and then it leads to *epistaxis*, *hæmatemesis*, *melæna*,

menorrhagia, and even *hæmaturia*.* In other cases the state of exanguious paleness precedes and forebodes the hæmorrhagy, as in some instances of *Purpura*, in which the tendency to extravasation of blood is more general, and occurs, in different cases, in all or each of the cutaneous and mucous textures, together or singly.

435. Another effect of an enfeebled capillary circulation is *œdema* or *anasarca*. This is a frequent occurrence in protracted cases of *Chlorosis*, of repeated blood-letting or protracted hæmorrhagy, and of the failure of the vital powers in disease, and in old age.

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* See an instance of this in Bateman's Reports of the Diseases in London, p. 123.

CHAPTER IX.

THE PHYSICAL CONDITIONS OF THE THORAX.

436. The physical conditions of the Thorax are determined by a careful *External Inspection*, by *Percussion*, and by the *Stethoscope*.

437. There is nothing, to me, more interesting than to lay bare the thorax and to watch its movements.

438. In *Inflammation*, and in *Disease*, the movements of the thorax are observed to be variously modified, and its form changed.

439. In *Pleuritis*, the thorax, or a part of the thorax, is kept unmoved, according as the disease is diffused or partial, and the respiration is performed by the diaphragm alone, or by one side or several parts of the thorax only.

440. In *Peritonitis*, the breathing is, on the contrary, *thoracic*—the diaphragm being motionless.

441. These modifications of the respiration are amongst the best diagnostics of *Pleuritis* and *Hepatitis*.

442. In more *Chronic Pleuritis*, the thorax is not only kept immoveable, but is absolutely deformed, one side or one part being drawn and fixed inwards, the shoulder depressed and fixed, and the spine distorted. This phenomenon is occasioned by the deposit of a thick layer of lymph, with the effusion of serum, and the subsequent absorption of the latter.

443. In excessive *Hydrothorax*, on the other hand, the thorax, or the side of the thorax, is more rounded than usual, whilst the diaphragm is weighed down. The breathing is thoracic and high; the liver is frequently felt, carried downwards.

444. The thorax may be actually measured in these cases; but an inspection is generally sufficient, and even more satisfactory. The posterior part of the chest should be viewed, as well as the anterior.

445. It is scarcely necessary to mention that *Aneurysm* is eventually visible externally in some cases.

446. But a far more important source of the diagnosis is *Percussion*, as first particularly noticed by Avenbrugger, and then by Corvisart. The operation requires a little use. A disc of ivory, or a half-crown piece, or the fingers, may be laid flat upon the chest, or the shirt may be drawn tight over it; or the fingers may be covered with a glove; percussion is then to be gently but briskly made with the very ends of the fingers, or the stethoscope. The next rule is to make a precisely comparative percussion of each side, and corresponding parts, of the thorax, extending the muscles. The fore part of the thorax is thrown forwards by sitting perfectly erect, the head raised, and the elbows carried backwards; the back, by bending a little, holding the head down, and bringing the arms forwards. It is useful, in obscure cases, to pass to the other side of the patient and repeat the operation.

447. The natural sound of the thorax is clear, on percussing the middle and sternal end of the clavicle; a little less so just below; a little less so still, between the *fourth* and *eighth* ribs, or in the mammary region. The sound is obscure over the liver, loud over the stomach.

448. Under the sternum the sound on percussion is clear.

449. In the axilla, and immediately below, the sound is clear: between the *fourth* and *eighth* ribs, laterally, the sound is clear, on the left side; but sometimes obscure on the right; denoting undue elevation of the liver. Below the *eighth* rib the left side is sonorous, the right side dull.

450. The interscapulary space gives an obscure sound, on account of the depth of the muscles. The space immediately below the scapulæ is obscure on the right side, over the liver, and sonorous on the left, over the stomach.

451. When the sound of the thorax is unnaturally dull, the subjacent space, instead of containing the lung permeable to

air, is occupied by the lung in a state of congestion or hepatization, by serous effusion, by a tumor, &c. It is thus that *Pneumonia, Hydrothorax, Hydro-pericarditis, Tumor, Hypertrophy of the Heart, Aneurysm*, &c. induce dulness of sound.

452. But percussion alone is rarely sufficient for the diagnosis: for this purpose it must be conjoined with the most important sign of physical change of all, viz. *Auscultation.*

453. The *Stethoscope* should be accurately applied to the chest, and all extraneous noises must be carefully removed: the positions of the patient are similar to those adopted in the use of percussion, § 446; inclined backwards, forwards, or to opposite sides, according as the fore part, the back, or the side, is to be examined.

454. The point to be first noticed, in treating of the use of the stethoscope, is that of the murmur or noise of *Respiration.* This is divided by Laënnec into—1, the *vesicular;* 2, the *bronchial;* to which he adds—3, the *cavernous.*

455. The *vesicular respiration* is heard in every part under which the lungs are subjacent; it is loudest in the axilla and above the clavicle; but it is distinct in all the anterio-superior, lateral, and posterio-inferior parts of the thorax.

456. The vesicular respiration is louder in infancy than in adult age: in cases of hurried respiration, and in cases in which, from disease, the patient breathes with only a part of the lungs, the respiration approaches its *puerile* state. The vesicular respiration is not always puerile in the cases of dyspnœa in which the breathing is loud to the ear: the sound, in such cases, is usually formed in the fauces and posterior nares.

457. The presence of the vesicular respiration denotes that of lung permeable to air; its absence, the absence or impermeability of the lung.

458. *Bronchial respiration* is that heard on applying the stethoscope over the larynx, trachea, and large bronchia at the root of the lungs. It is free from the slight *crepitus* which distinguishes the vesicular respiration, and gives the idea of air passing into or along larger spaces. It is heard in almost

every part of the neck. It is not distinguishable where the vesicular respiration is equally heard.

459. But in cases in which the lung is compressed by effusion, or condensed, as in pneumonia or hæmoptysis, and the vesicular respiration is impaired or annihilated, the bronchial respiration is heard in its place. The bronchial respiration is frequently heard at the root and summit of the lungs.

460. It is important to learn to distinguish these two kinds of respiration: for, whilst the vesicular is the sign of health, the bronchial is amongst the first symptoms of pneumonia and of tubercles.

461. The *cavernous* respiration is that heard over a cavity in the lung. It occurs in vomica, abscess, and dilated bronchia.

462. To these forms of respiration Laennec has further added, the "*souffle*," or *blowing*. When the patient speaks, or coughs, the air seems actually drawn from or propelled into the ear. This sign indicates a cavity, or enlarged bronchia, surrounded by condensed lung, near the parietes of the thorax.

463. The souffle is sometimes modified by the sensation as of a *veil* interposed between a cavity and the ear—"*souffle voilé*." This phenomenon is observed in cases in which a vomica has its parietes thin, yet unequally so, and unadherent, or an abscess has its parietes of unequal induration, or a large bronchi is surrounded by lung partly condensed and partly natural, or nearly so.

464. The phenomena to be next noticed are the various *Rattles*. One of these is heard at a distance from the patient: it is that of mucus in the trachea, in cases of catarrh and of dying persons, and of blood, in hæmoptysis. There is a second which is also audible without the stethoscope: it is mentioned, § § 351, &c.

465. The rattles heard by means of the stethoscope, are—1, the *vesicular*, or *crepitating*, moist and dry; 2, the *bronchial*, which is *mucous*, *sonorous*, or *sibilant;* and 3, the *cavernous*.

466. The moist vesicular or crepitating rattle, which re-

sembles the noise of salt thrown upon the fire, is the pathognomonic sign of the first degree of *Pneumonia*. It disappears as hepatization takes place, and reappears with the progress of resolution. It also occurs in *Œdema* and in *Pulmonary Apoplexy*.

467. The dry vesicular or crepitant rattle resembles the noise made by distending a dry bladder, and is the pathognomonic sign of *Emphesema of the Lung*.

468. The mucous bronchial rattle is that of *Bronchitis*, or of softened *Tubercles*, and, in the trachea, that of dying persons. It differs with the quality and the degree of consistency of the bronchial fluid, and the consequent size and number of the bubbles which form and burst. It exists principally in *Catarrh*, in *Hæmoptysis*, and in *Pneumonia* and *Phthisis*. In the two former it is seated in the bronchia; in the latter, in the bronchia or in cavities. In the last case it is designated *cavernous*, and especially heard during the act of coughing.

469. The *sonorous* rattle seems to take place in the bronchia, compressed or dilated, or in pulmonary fistula.

470. The *sibilant* rattle has its seat in the small bronchia, partially obstructed by mucus.

471. The phenomena to be next described are those of the *Voice*, and are denominated *broncophony*, *pectoriloquism*, and *ægophony*.

472. The first of these is *broncophony*. The resonance of the voice, on applying the ear or stethoscope over the healthy lung, is a little different from the feeling conveyed to the hand; but that over the larynx or trachea, and a great part of the neck, traverses the tube and is very similar to pectoriloquism, whilst that over the sternal part of the trachea, however forcible, does not penetrate the instrument.

473. The resonance of the voice over the large bronchia, situated in the interscapulary region, is obscurer, though still very distinct, and in thin persons it resembles laryngophony; in other parts of the chest the resonance of the voice is nearly absent—the bronchia being small, little firm in texture, and surrounded by pulmonary tissue, a non-conductor of sound.

474. If the surrounding lung becomes the seat of hepatization,

of apoplexy, or of tubercles, it conducts the sound of the voice and gives origin to bronchophony. This is especially observed near the root of the lung, in cases of *Pneumonia.*

475. Bronchophony is also produced by dilatation of the bronchia, with condensation of the surrounding pulmonary tissue.

476. The next phenomenon of the voice is that termed *pectoriloquism:* it is distinguished from bronchophony by its cavernous and circumscribed character; and it occurs in all cases of cavities, resulting from softened tubercles, abscess, &c. It is *perfect* or *imperfect.*

477. Pectoriloquism is perfect when the voice passes through the stethoscope, from a space accurately circumscribed, and the cough, rattle, and respiration combine to distinguish the phenomenon from bronchophony. It is imperfect when some of these phenomena are wanting, and especially the transmission of the voice through the tube. Perfect pectoriloquism denotes an ample and empty cavity, situated near the surface, with dense parietes, and in communication with one or more bronchia of considerable size, unobstructed by sputa.

478. With pectoriloquism, and especially bronchophony, *ægophony* may easily be confounded, without great care. It consists in a peculiar resonance of the voice, which accompanies or follows articulation; it seems as if an echo of the voice, of an acute, harsh, and silvery character, were heard at the surface of the lung, rarely entering, and scarcely ever traversing, the tube. It resembles the bleating of the goat, whence its name. In the vicinity of a large bronchi, bronchophony is frequently superadded.

479. In order to hear the ægophony well, the stethoscope must be firmly pressed upon the chest, and the ear must be applied lightly. The phenomenon exists—1, in cases of *pleuritis,* acute or chronic, with a moderate effusion; 2, in *hydrothorax.* In these cases the sound on percussion is, at the same time, dull, and the respiratory murmur absent. The ægophony ceases when the fluid is either absorbed, or so augmented in quantity as to induce enlargement of that side of the thorax.

480. Ægophony is always heard over a certain space, and often between the scapula and spine, and across the thorax to the mamma, and not, like pectoriloquism, in one part only—evidently occupying the superior border of the effusion, where it exists as a thin layer of fluid, moderately compressing the bronchial tubes. The seat of ægophony is, consequently, modified by the quantity of effusion, and by pleuritic adhesions; and changed by the posture of the patient.

481. Ægophony and bronchophony are united in pleuro-pneumonia; and pectoriloquism may be conjoined with them in the case in which abscess is superadded.

482. The next phenomenon in connexion with our present subject, is that of *Cough*. If the stethoscope be applied over the thorax in general, nothing is perceived but the concussion induced by coughing; but over the larynx and the trachea, and over the bronchia at the root of the lung, especially in the case of *Pneumonia*, of pleuritic effusion, and of dilatation of the bronchia, there is the obvious sensation of an internal cavity or canal; the cough is *tubal*. In the case of vomica or abscess, the cough is *cavernous*, and attended by cavernous rattle.

483. Cough is sometimes also attended with the *metallic tinkling*, in cases in which this is inaudible in the respiration or the voice. The same observation applies to the different rattles; and it frequently reveals pectoriloquism, crepitus, and respiratory murmur, which the presence of matters in the bronchia had suspended.

484. The sound of the *metallic tinkling* is precisely that of a glass struck by a pin. It is heard in respiration, but especially when the patient speaks or coughs; it exists in two cases: 1, in that of effusion into the pleura with pneumothorax, and a communication with the bronchia; 2, in that of a vast cavity in the lung partially filled only, with thin pus. This sign is more distinct, as, in the former case, the fistula is larger, and the quantity of air greater.

485. Sometimes the sound is like that heard on blowing into a decanter. It is then termed *amphoric resonance*.

486. There is another sound heard by the stethoscope in the

case of *inter-lobular Emphysema:* it is that occasioned by the ascent and descent of the affected part of the lung against the pleura costalis. A similar phenomenon may exist in *Pleuritis* with moderate effusion.

487. The next application of the stethoscope is to ascertain the condition of the *heart* and *large vessels.* The beat of the heart must be examined in regard—1, to its *diffusion* over the thorax; 2, to its *impulse;* 3, to its *sounds;* and 4, to its *rhythm.*

488. In the healthy state, the sound of the heart is more or less confined to the space between the cartilages of the *fourth* and *fifth* ribs of the left side, and at the bottom of the *sternum;* in which points the left and right sides of the heart are heard respectively. In thin persons and children it is heard under the clavicles.

489. When the extent of the beats of the heart is augmented, they are heard in the following spaces:—1, along the *left* side of the chest from the axilla downwards; 2, along the *right* side; 3, along the *back* of the *left* side; 4, along the *back* of the *right* side.

490. The degree of diffusion of the beat of the heart is proportionate to the thinness of its parietes, the feebleness of its contractions, and to the size of the organ.

491. The *impulse* of the heart is inversely as the diffusion of its beat, and directly as the *thickness* of the organ. Augmented impulse is therefore the sign of *Hypertrophy;* diffusion of the sound, with the absence of impulse, the sign of *Dilatation.*

492. The *sound* of the heart is double, consisting of a *first,* dull and prolonged, coinciding with the contraction of the ventricle, and a *second,* short and distinct, coinciding with their dilatation.

493. The degree of sound is inversely as the impulse, and directly as the diffusion, of the beats of the heart: it is, consequently, dull in *Hypertrophy,* loud in *Dilatation.*

494. The following is the healthy *rhythm* of the heart:—the first sound is synchronous with the impulse and the beat

of the pulse; the second speedily succeeds; and after a rather longer interval, the first is repeated.*

495. In *Hypertrophy* the first sound is still more obscure and prolonged; in *Dilatation* the first sound is louder, more like the second.

496. The next subject to be noticed is that of *unnatural sounds* of the heart. These are two: *the bellows' sound* and *the cat's purr.*

497. These sounds vary exceedingly, as do also the morbid conditions in which they exist. These are, contraction of the valves; hysteric and nervous affections; the state of inaction from loss of blood;† &c.

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* Laënnec viewed the first sound as owing to the contraction of the ventricles, the second to that of the auricles. Dr. Turner, of Edinburgh, considers the first sound to arise from contraction of the ventricles; but the second not to be synchronous with, therefore not dependent upon, that of the auricles.

† See a Paper in the Med. Chir. Trans. vol. xvii.

CHAPTER X.

ON THE FUNCTIONAL AFFECTIONS OF THE ALIMENTARY CANAL.

498. In this chapter I shall briefly notice the symptoms which may be taken from the morbid affections of the *pharynx and œsophagus, the stomach and bowels, and the sphincter ani.*

499. The act of deglutition is performed by the pharynx and œsophagus, with the aid of the cheeks, fauces, &c. Sometimes this act is liable to be interrupted by diseases of some part of the canal itself, or of the adjacent organs.

500. By observing the *kind of effort* made by the patient, we may often ascertain pretty nearly what is the situation of the causes of obstruction. If the fauces be defective, the substance attempted to be swallowed is often forced through the nostrils; if the cardia be obstructed, the patient frequently regurgitates a large quantity of food apparently swallowed.

501. In cases of tumors, as *Scirrhus, Aneurysm,* &c. the trachea is often compressed, and a croupy dyspnœa and cough are apt to be conjoined with dysphagia.

502. There is much difficulty of swallowing in the very last stages of *Typhus Fever*, and in the state of *Sinking* in general; the attempt is not unusually attended with painful choaking, coughing, and catching of the larynx.

503. The deglutition has been impaired in some cases of *Paralysis.*

504. Dysphagia is occasionally observed as a symptom in *Hysteria*, and other nervous and spasmodic disorders.

505. I now proceed to notice the principal morbid affections of the functions of the *Stomach and Bowels:*

506. The functions of the alimentary canal are generally much more deranged in *Fevers* than in *Inflammations*, except those of the mucous membranes. Of the former, anorexia is often the first, and constipation almost a constant symptom, and the alvine evacuations are dark and fœtid; in a late stage of protracted *Fever*, aphthæ, diarrhœa, melæna, or a timpanitic affection, not unfrequently supervenes: in *Inflammations* the stomach and bowels are not essentially, and often not at all, affected, except indeed in the colliquative stage, when aphthæ and diarrhœa are not uncommon.

507. A similar remark applies to the class of *Disorders* as distinguished from *Diseases:* in the former there is much, in the latter frequently very little, stomachal or intestinal disorder.

508. The stomach and bowels are apt to be much affected in *Diseases of the Head: concussion* frequently induces *vomiting* as its first symptom; *vomiting* is often a *precursory* symptom of *Apoplexy;* in cases of *compression* the stomach and bowels are apt to be torpid, and are with difficulty acted upon by medicine.

509. In *Inflammation* and other *Diseases of the Thorax* the stomach and bowels are often little affected.

510. *Inflammation of the Stomach* is attended by irritability and frequent vomiting. In *Enteritis* the bowels are apt to be obstinately costive,—and there is at length, in many cases, much tenderness and tympanitic affection; the latter symptom is also observed in *Dysentery.*

511. Vomiting, hickup, the ineffective operation of purgative medicine, distension, &c. occur in some cases of *Enteritis*, *Strangulated Hernia*, *Intus-susceptio*, and the last stages of many diseases.

512. Hickup, rumination, and vomiting, are frequent symptoms in the *Dyspepsiæ.* Vomiting occurs of course in the *Cholera Morbus*, and in many cases of *Poisoning*—and frequently as a symptom of *Gall-stones*, and of *Renal Calculus* or *Inflammation.*

513. In some *Chronic Diseases of the Bowels* the convolu-

tions of the intestines are apt to be distended and raised in the form of a transient, painful, spasmodic, and flatulent tumor; and the passing of the food, or the evacuation of the bowels, is attended with much pain.

514. The substances rejected by vomiting are principally food, mucus, bile, fæces, pus, and blood.

515. The morbid appearances observed in the alvine evacuations are chiefly diarrhœa, scybalæ, mucus, pus, and blood; the motions themselves may be scanty or copious, dark-colored or light-colored, and disordered and offensive in different degrees; the appearance of the mucus and of the blood are also various.

516. It has already been observed, § 506, that the alvine evacuation is generally much more offensive and disordered in *Fevers* than in *Inflammations*, and in the class of *Disorders* than in that of *Organic Diseases*.

517. In some protracted *Diseases*, however, the alvine evacuations are very morbid, especially in *Diseases of the Liver*, and of the *Mesentery*. In those cases of disease of the liver attended with *Icterus*, as in all other cases of jaundice, the motions are clay-colored, and deprived of the yellow tinge imparted by the bile.

518. In some cases, both of disease of the liver and of the mesentery, but especially the latter, the appetite has been great, the food has passed off quickly, and the motions have been copious, fœtid, and light-colored.

519. The motions are generally pale and fœtid when the food passes through the alimentary canal rapidly, as in *Lientery*.

520. The alvine evacuations are generally very offensive in all cases attended with rapid *loss of flesh*, but in none more than in those in which the powers of life are, at the same time, in a state of decline—as in the decay of *old age*, in cases of *slow fevers*, &c.

521. *Mucous* evacuations are the effect of irritation or inflammation of the mucous membrane of some part of the intestinal canal, especially the rectum and colon. They occur in *Dysentery*, as the effect of *Corrosive Poison*, and in cases in

which the rectum is irritated by impacted and scybalous fæces; they are often mixed with blood: in the last case there are often severe attacks of pain in the seat of the sigmoid flexure of the colon, and copious discharges of blood—effects which are relieved by evacuating the rectum by enemata.

522. Sometimes an exudation takes place from the internal surface of the intestines, which resembles membrane or tænia, and is discharged per anum, exciting much needless alarm in the patient.

523. *Discharges of Blood* occur from indigestion and intestinal irritation; *hæmatemasis* and *melæna* are often conjoined, from these causes, in the different forms of the *Dyspepsiæ*.

524. That state of things which gives origin to *Purpura*, frequently conjoins other hæmorrhages, as well as the petechial rash and vibices, with the vomiting and dejection of blood. I have already mentioned the occurrence of melæna as a formidable symptom in *Fevers*.

525. Discharges of blood from *Hæmorrhoids* should be distinguised from the more serious case of melæna.

526. The *Rectum and Sphincter Ani* are apt to be affected with *Tenesmus, Obstruction, and Paralysis*:—

527. *Tenesmus* accompanies some of the diseases of parts in the neighborhood of the rectum, as *Calculus, Scirrhus of the Prostate Gland, Diseases of the Uterus*, &c. as well as those of the *Rectum* itself. It is almost unnecessary to state how painful a symptom it is in most cases of *Dysentery*, of diseases of the mucous membrane of the colon and rectum, of impacted *Scybalæ*, &c.

528. *Obstruction* in the rectum is the effect of disease of the part itself, generally *Stricture or Scirrhus*, of the pressure of the uterus in *Retroversio Uteri*, of *Organic Tumors* affecting adjacent parts, &c.

529. In every case in which symptoms of this kind occur, an *examination per rectum* should be instituted. By this means many cases, which would otherwise go unrelieved, will be detected, and the proper remedies will be applied. I speak of the introduction of the finger; that of the bougie requires

great care not to mistake the obstruction offered by a fold of the intestine, or the promontory of the sacrum, for disease. See Chap. IV. The Diagnosis of the Diseases of the Alimentary Canal, § 743.

530. A *paralytic state* of the rectum and involuntary evacuations occur in the last stages of *Apoplexy* and other *Diseases of the Brain*, and in *Diseases of the Spine*.

531. Involuntary motions are the frequent effect of the extreme debility observed in *Typhus Fever* and in the state of *Sinking* in general

532. I need scarcely allude to the case of lacerated perinæum and rectum, and the consequent loss of power to retain the alvine contents.

CHAPTER XI.

OF THE FUNCTIONAL AFFECTIONS OF THE URINARY ORGANS.

533. The symptoms to be drawn from the morbid affections of the functions of the Urinary Organs, relate to the *secretion, excretion, and condition of the urine, and to the substances which are apt to be mixed and expelled with this fluid.*

534. The secretion of urine is either *too copious, scanty,* or *suppressed.*

535. A too copious secretion of urine takes place in the disease termed *Diabetes,* and a very rapid secretion of limpid urine is sometimes observed in cases of *Hysteria* and other nervous disorders.

536. The urine is apt to be unnaturally scanty in the *Dropsies.*

537. The case of total *suppression* of urine is generally a very serious affection—leading to coma and a fatal termination.*

538. The excretion of urine is apt to be morbidly affected by *strangury, dysury, retention, and enuresis.*

539. *Strangury* occurs from the application or administration of *Cantharides,* in some cases of *Hysteria, Dysentery,* and *Calculus,* and other morbid affections of the bladder and adjacent parts.

540. *Retention* of urine is more frequently a *symptom* of

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* See an interesting paper by Dr. Abercrombie, Ed. Med. Journ. vol. xvii, p. 210.

disease. It is observed in the late stages of *Typhus Fever*, and is of very unfavorable augury; it occurs in *Diseases of the Brain* and of the *Spine;* it is observed as an effect of debility and of insensibility in general; in the state of sinking, in extreme old age, &c.; it is not unusual after delivery; it is sometimes induced by the action of cantharides; and it is a symptom in *Retroversio Uteri*, and in other cases in which the neck of the bladder is subjected to compression from the state of the viscera situated in the pelvis. In the cases attended by insensibility, I have observed a constant *elevation of the knees* as the effect of the retention of urine, and of the distended and tender state of the bladder.

541. *Enuresis*, or the involuntary flow of urine, is also a symptom observed in *Typhus Fever*, and in *Diseases of the Brain* and of the *Spinal Marrow*. It occurs in the former case from great debility and insensibility; in the latter from insensibility or paralysis. It is sometimes even a rather early symptom of *Chronic Inflammation of the Brain.*

542. *Enuresis* is an effect in some *Diseases of the Bladder*, and it arises sometimes from injury sustained during delivery.

543. I have once or twice met with cases in which the urine was expelled by involuntary *gushes*, occasioned by sudden contraction of the bladder; they have appeared to be of a hysteric or nervous nature. They have occurred in pregnancy, exciting the fear of abortion.

544. The *appearances* of the urine, and the nature of its deposits, are subject to great variety, and still afford scope for observation and experiment:—

545. We are still in want of a series of careful observations on the appearances and other *obvious* characters of the urine in the different kinds, stages, and circumstances of *Fevers* and *Inflammations*, and of *Disorders and Diseases* in general.

546. In some cases the urine is copious and limpid, and remains, on cooling, free from sediment; this is particularly observed in *hysteric* and *nervous affections.*

547. In other cases the urine is so charged with matters in solution, that there is not only a sediment on cooling, but a

pellicle on its surface from evaporation or exposure to the air: this has particularly occurred in some instances of derangement of the digestive functions.

548. More frequently there is simply a copious sediment on cooling. These sediments are of different kinds. To avoid repetition, I refer my readers to Chapter VI. on the Diagnosis of the Diseases of the Urinary Organs, § § 807—820. I shall merely briefly state, in this place, the points which most call for attention from the mere practitioner:—

549. The first is to determine whether the urine be acid or alkaline: this is readily done by using a little paper tinged with the tincture of litmus, or so tinged and reddened by a weak acid; acidity turns the blue paper red, and alkali restores to the reddened paper its blue tint.

550. If *acidity* prevail, we look for deposits of the urate or lithate ammonia, which is pulverulent or amorphous; or of the uric or lithic acid, which is crystallized, constituting the red gravel;

551. If the urine be *alkaline*, which is observed more rarely, and later, we expect a white pulverulent sediment of the mixed phosphates; or white crystals of phosphate of magnesia and ammonia, or the white gravel;

552. Excess of *Urea* is detected by the deposit of crystals on the addition of nitric acid;

553. *Albumen*, by exposure to an elevated temperature;

554. *Mucus*, *Pus*, and *Blood*, by the test mentioned, § 377.

555. I strongly advise every young clinical student to familiarize himself with these simple but useful experiments.

556. Besides the tendency to deposits on cooling, the urine is sometimes charged with albuminous matters coagulable by heat, especially in certain cases of *Dropsy* and *Diseases of the Kidney*. It is almost unnecessary to notice the bilious tinge of the urine in the different cases of *Icterus*, and its saccharine impregnation in *Diabetes*.

557. Discharges of mucus with the urine attend *Chronic Inflammation of the Bladder*, *Disease of the Prostate Gland*, *Calculus*, &c. Pus and blood are sometimes observed as the

effects of *Calculus* and *Ulcers* of the *Bladder* or *Kidney*. These discharges should be carefully considered. See § 377.

558. Copious discharges of blood occur in some instances of *Intestinal Irritation*, and of *Purpura*.

559. I once had a patient who discharged a quantity of dark-colored blood on any exposure to severe cold; the affection yielded to the genial influence of a warm bed.

CHAPTER XII.

ON THE FUNCTIONAL CHANGES IN THE UTERINE SYSTEM.

560. The morbid changes in the function of the Uterine System relate principally to the *suppression, the too copious flow, or the unnatural state of the discharges.*

561. The *retention* or *suppression* of the catamenia occurs in the second stage of *Chlorosis:* in general, but by no means always, the flow loses its color and diminishes in quantity *very gradually*, as the effect of this disorder.

562. In many organic diseases—in *Phthisis Pulmonalis*, in *Mesenteric Disease*, &c. and in cases attended by great debility and emaciation—the catamenia are very apt to become suppressed, and that *at once*, without the *changes* in their appearance just noticed.

563. Exposure to cold, fear, and other causes, are apt to induce suppression of the catamenia. Much purgative medicine and fever will sometimes induce the same effect; but fever, sometimes, on the contrary, seems to occasion a flow of the catamenia before the proper period.

564. The catamenia are usually suppressed during lactation.

565. *Menorrhagia* is less frequent than suppression of the catamenia; I have known it induced by *Intestinal Irritation;* it is frequently an effect of *Fibrous Tumor* of the uterus.

566. The *Fluor Albus* is an effect of many states of disorder, of great weakness, of frequent miscarriages, &c. It is often a source of great debility too, and of the inefficiency of medicine to remove a series of nervous affections.

567. *Morbid discharges* from the vagina take place in cases of *Polypus, Scirrhus, Ulcers,* and other diseases of the *Vagina* or *Uterus:* the character of the discharges conduces very much to the diagnosis; when protracted, they ought always to lead to a careful examination; § 377.

568. Discharges of blood frequently depend on the existence of *Polypus:* such discharges may, however, be the result of *Menorrhagia;* or, during pregnancy, of a partial detachment of the placenta.

569. All such symptoms should suggest the expediency of a careful *examination per vaginam.* Much unnecessary pain and suffering are entailed upon the female sex by the ignorance and inattention of physicians in regard to this important point.

CHAPTER XIII.

THE PHYSICAL CONDITIONS OF THE ABDOMEN.

570. THE physical conditions of the abdomen are ascertained by an *External Examination*, and by *Examinations per vaginam* and *per rectum*, and with the *Sound*.

571. The abdomen may be divided into the *epigastric* and the *two hypochondriac* regions; the *umbilical* and the *two chondiliac;* the *hypergastric* and *two iliac*. The *Anatomy* must guide us in determining the situation of the viscera in each of those regions.

572. The *External Examination* consists, at first, in applying gentle pressure, to ascertain whether the abdomen, or any part of it, be the seat of an *enlarged viscus*, of a *tumor*, of *effusion*, of *tympanitis*, of *pulsation*, &c.

573. The *Liver* may be felt lower in the hypochondrium than usual from *Hydrothorax;* or it may be enlarged in itself. The latter case will be distinguished by tenderness and other symptoms of hepatic disease.

574. The *Stomach*, and especially the *Pylorus*, when diseased, may descend below its natural situation, and be found in the umbilical, and even in the hypogastric, region. The *symptoms* give the diagnosis.

575. It is only necessary to add, in this place, a list of the principal *Viscera* and *Tumors* which may present partial indurations on examination of the abdomen:

576. The former are—1, the *Liver;* 2, the *Spleen;* 3, the *Stomach;* 4, the *Intestines;* 5, the *Mesentery;* 6, the *Kidney;* 7, the *Bladder;* 8, the *Uterus;* 9, its *Appendages*. These various organs should be traced on every examination of the abdomen.

577. The latter are—1, *Abscess;* 2, *Effusion of Lymph;* 3, *Aneurysm;* 4, *Intestinal Calculi, indurated Fæces,* &c. These and other sources of tumor should also pass through the mind in every examination of the abdomen.

578. In many cases it is important to place the patient in the prone position, and to examine the regions along the spine, by the hand, and by the stethoscope.

579. The abdomen may be generally enlarged—1, by *Polysarcia;* 2, by *Anasarca;* 3, by *Ascites;* 4, by *Dropsy of the Ovarium;* 5, *Tympanitis;* &c. The two former are readily distinguished by comparing the *elasticity* of the one with the opposite characteristic of the other.

580. *Ascites* is ascertained by the sense of *fluctuation* conveyed by *percussion.* Early in the disease, the prominent part of the abdomen is also sonorous; the sides without sound. It is frequently necessary to press *through* ascites, in order to arrive at an *enlarged viscus,* or a *tumor.*

581. *Dropsy of the Ovarium,* on the contrary, frequently presents a total absence of sound in its most prominent part, whilst the sides of the abdomen are sonorous.

582. In *Tympanitis* the whole of the abdomen is tumid, tense, and sonorous.

583. There can be no doubt that the stethoscope might be used with some advantage in *Ascites, Tympanitis, Diseases of the Intestines,* &c. as well as in *Aneurysm.*

584. The *Examination per Vaginam* is essential to the diagnosis of *Diseases* of the *Uterus* and its *Appendages,* of *Pregnancy,* &c. Whilst the finger of the right hand is introduced into the vagina, the left should press upon the hypogastrium. The state of the *os uteri,* the size and weight of the *uterus* itself, the existence of adjacent *tumors,* &c. are thus determined; the diminution of the cervix uteri, the enlarged state of the uterus, and the repercussion of the fœtus, ascertained by this examination, determine the fact of pregnancy.

585. To ascertain the condition of the *vagina* and of the *os uteri,* a speculum, consisting of a cylinder of glass of a proper form, is highly useful.

586. *Examination per Rectum* frequently confirms the diagnosis made by that per vaginam, and determines that of *Diseases* of this *Intestine* itself. It consists in introducing the finger, a bougie, or the speculum. See § 529.

587. I need say nothing of the use of the *sound*, except that it should always be conjoined with that of the stethoscope.

SECTION III.

THE EFFECTS OF REMEDIES.

THE EFFECTS OF BLOOD-LETTING.

588. The Effects of Blood-letting are those which are most appropriately introduced in this place, as *diagnostic* of diseases.

589. It is one of the most remarkable facts in physic, that if several patients of similar strength and constitution, but affected by dissimilar diseases, be respectively placed in the erect position and bled to deliquium, they will be found to have lost very various quantities of blood. I have known a patient, not apparently very feeble, faint on losing four ounces of blood; and I have known patients bear to lose fifty, sixty, and even seventy ounces of blood without syncope.

590. This fact, plain and simple as it is, with its rationale and practical applications, has, I think, been greatly overlooked.

591. Its rationale is to be found, I believe, in connection with an equally interesting fact, that different diseases induce in the constitution different powers or susceptibilities in regard to the effects of loss of blood. Each disease appears, indeed,

to possess its own peculiar and intrinsic virtue in this respect. This is determined by placing the patient perfectly erect, and bleeding to incipient syncope; the quantity of blood which flows is the measure of the protective influence of the disease in one class of cases, and of its influence in superinducing a susceptibility to the effects of loss of blood in the other.

592. An interesting scale of diseases may be formed representing these properties. It would begin with congestion of the head, or *tendency to Apoplexy; Inflammation of the serous membranes,* and of *the parenchymatous substance* of various organs, would follow; and, lastly, *Inflammation of the mucous membranes.* This part of the scale would be divided from the next by the condition of the system in health. Below this would be arranged fever, the effects of *Intestinal Irritation,* some cases of *delirium, re-action from loss of blood,* and disorders of the same class with *Hysteria, Dyspepsia, Chlorosis,* and *Cholera morbus.*

593. Persons in health and of moderate strength will generally faint, if bled in the erect posture, on taking fifteen ounces of blood. I have known seventy ounces to be taken in the sitting posture, in the tendency to apoplexy, without syncope; but the case is an extreme one. Patients with *Pleuritis* or *Pneumonia* frequently lose thirty-five ounces of blood without fainting. In *Bronchitis* little more is borne to be lost than in health. A stout person in *Fever* will frequently faint on losing ten, twelve, or fourteen ounces of blood. In *Intestinal Irritation,* with urgent symptoms even, the abstraction of nine or ten ounces of blood will generally induce deliquium. In *Delirium Tremens,* or *Puerperal Delirium,* the patient soon faints from loss of blood. The same thing is still more observed in those cases of violent re-action which arise from loss of blood itself. In *Dyspepsia, Hysteria,* and *Chlorosis,* the susceptibility to syncope from loss of blood is very great: and I have known a patient, of good strength, affected with *Cholera,* faint on taking four ounces of blood, although she had shortly before borne to lose nearly twenty ounces without faintishness, under the influence of *inflamed Mamma.*

594. The practical application of these facts consists chiefly

in its affording a rule for blood-letting in all cases in which this measure is required to be fully instituted; a guard against undue blood-letting, both in this and some other cases; and a source of *Diagnosis*.

595. The rule is suited also to the *degree* and the *duration* of the disease; for, with each of these, its influence in inducing tolerance or intolerance of loss of blood is respectively augmented.

596. It is not less adapted to those most frequent of all events, *mixed* cases. Inflammation and irritation may be conjoined: for example, there may be mere nephralgia, or absolute nephritis, from calculus, or a mixed case involving both. There may be mingled intestinal irritation and inflammation. In each of these circumstances, the rule for blood-letting which I have proposed adapts itself accurately to the demands of these various morbid affections, and to the actual strength and condition of the general system.

597. It is difficult to say whether more injury has been done by an undue or by an inefficient use of the lancet. In inflammation we must bleed fully. In irritation we must bleed cautiously. Inefficient blood-letting, in the former disease, and undue blood-letting, in the latter, are alike dangerous or even fatal to the patient; from both extremes we are guarded by the rule which I propose. By directing the patient to be placed in the erect position, and bled to deliquium, we often take much more blood than we should have ventured to prescribe, in inflammation, and very much less than we might be disposed to direct, in irritation; and in both these cases the rule conducts us to the only safe mode of treatment.

598. If much blood has flowed, then, before syncope has occurred, we must suspect inflammation; if little, we must suspect that, however similar the symptoms, the case is in fact of a different nature—perhaps irritation, perhaps exhaustion.

599. I have also found that, in every case in which early syncope occurs from blood-letting, the more remote effects of loss of blood, as reaction, or sinking, are also very liable to occur; and it is in these cases that sudden dissolution has followed the use of the lancet. There is, in every point of view,

intolerance of loss of blood. The reverse of all this obtains in inflammation, which seems to be incompatible, to a certain degree, with the effects of loss of blood, which are, however, very apt to supervene as the inflammatory action subsides.

600. And here I would solicit the co-operation of my medical friends in the further investigation of the subject of which I have briefly treated. It is by the multitude of facts alone, that the propositions which have been stated can be established or corrected. With the view of obtaining these facts, I would propose that, in every case in which full blood-letting is to be instituted, the patient should be placed perfectly erect in a chair, or in bed, and bled to the very first appearance of deliquium; the quantity of blood taken is then to be noted, and accurately registered in a table. The same thing is to be observed on each repetition of the blood-letting.

601. And that nothing may be left unattended to, which may throw additional light on the subject, to this point I would add—1, the appearances of the blood, and 2, the effects of its abstraction upon the disease.

602. These various facts I propose to register in the following manner:

Age and strength of the patient.	Disease, its stage and complications.	Quantity of blood taken.	Effects on the patient and disease.	Appearances of the blood.	Repetitions of the blood letting.	Effects.

603. It is obvious that none but the most unequivocal cases should be thus registered. Cases, the diagnosis of which was not perfectly clear, would only add their own obscurity to the investigation.

604. It is equally obvious that the investigation proposed can only add useful facts, which will in their turn become useful guides to the physician. It is still true, as Celsus has

observed,—"*nulla perpetua precæpta medicina recipit.*" To the young practitioner, however, I think the practice proposed will prove of great assistance; and if it preserve one from the bitter reflection, which some have experienced, of having done too much or too little, I shall not esteem that my exertions in introducing it have been in vain.

605. I would observe, in conclusion, that I do not think it safe, in any case, to bleed to actual deliquium, in the recumbent posture. But there are few cases, if any, in which, if it be proper to bleed fully at all, danger can accrue from bleeding to the most incipient syncope, in the perfectly upright position. Besides, the remedy is at hand. It consists simply in laying the patient recumbent, and if necessary, raising the feet and depressing the head.

606. It may become a question, whether the patient may, in a little time, be again placed erect, so as to reproduce a state of slight deliquium, and thus to add to the power of the previous blood-letting in subduing the disease. But I do not think a state of continued syncope free from danger. I have known it lead to delirium.

607. On the other hand, the influence of an opposite position, the head being placed extremely low, and the lower part of the body being very much raised, has not been sufficiently traced in the various cases of the immediate or remoter effects of loss of blood.

608. Amongst the other objects of this "proposal," is that of collecting any modifications or exceptions, in regard to the rule which I have laid down. It cannot be imagined that it should be without exceptions. It is as important that these should be pointed out, as that the rule itself should be established. There are two exceptions to the rule which I have proposed, which I would briefly mention. In some cases of fever requiring blood-letting, the patient cannot support the erect position: in such a case, the arm must be first prepared, and then the patient should be gently raised and supported in the upright position, carefully avoiding all muscular effort; the vein should then be promptly opened. On the other hand, in the case of congestion of the brain from exhaustion, there is

not such early syncope from blood-letting as might be expected; and yet it is obvious that the system cannot bear the loss of blood: I have known this to obtain in exhaustion from undue lactation.

609. It will also be an interesting question whether this rule, in its repetitions, besides excluding undue blood-letting on one hand, and inefficient blood-letting on the other, does not secure the cure of the disease, with the least possible expenditure of the vital fluid.

610. The appearances of the blood, the effects of its abstraction upon the disease, and many other questions, will naturally come to be included in the farther prosecution of the inquiry into the effects of blood-letting.

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611. There is a totally different point of view in which the Effects of Blood-letting may prove diagnostic: it is when, instead of effectually removing the disease, it only relieves a symptom which speedily returns, perhaps with augmented violence.

612. This effect is seen in cases of *Chlorosis*, in which the *pain of the head*, or the *pain of the side*, has led to the repeated but mistaken use of the lancet. I have known patients terribly worn and shattered by this proceeding, the health remaining feeble for years. In such a case the very number of leeches and blisters which have been applied becomes a diagnostic of the disease!

613. Another case is that in which one of the remote effects of loss of blood itself, as pain of the head, or throbbing of the temples, has suggested the further use of blood-letting. The eyes of the practitioner are at length opened to the folly and imprudence of the measure by a state of debility not entirely free from alarm.*

614. This effect has been observed in cases in which it was

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* Researches on the Effects of Loss of Blood.

consequent upon blood-letting, perhaps properly instituted. Mr. Brodie has observed it in cases of *Injury of the Head.** It is the common consequence of blood-letting carried *beyond* the limit which the disease requires, or, what is the same thing, *beyond* what the system can bear.

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615. Similar observations might be extended to other remedies, and especially to *mercury, digitalis, purgative medicines,* &c.

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* Med. Chir. Trans., vol. xiv, p. 381.

SECTION IV.

THE MORBID ANATOMY

616. NOTHING has contributed so much to establish the validity of the *History, Symptoms,* and the *Effects of Remedies* as *signs of disease,*—to raise Medicine from its condition of a *conjectural Art,* to the rank of a *Science,* as the investigations into the *Morbid Anatomy.*

617. The presence of morbid changes of structure affords the evidence of previous morbid actions; their absence affords the proof that *such* morbid actions have not existed.

618. I would observe, however, that the mere student of Morbid Anatomy is not a good practical physician. There is so much to be considered in the condition of the general system, in the sympathies with the organ, or organs, principally affected, in the effects of remedies, &c. that he who has an eye to the mere *disease,* the morbid change of structure, alone, is is not in possession of the knowledge required to treat the *patient.*

619. In pursuing the *post-mortem examination,* a certain *order* should be observed: all the cavities, all the organs should be inspected, and not those only in which disease is suspected; the ***Head,*** the ***Thorax,*** the ***Abdomen,*** and the various parts

and organs contained in them, must be examined, must be opened, in succession.

620. In each of these cavities we must notice the state of each organ, and in each organ we must examine the different textures, but especially

1. *The Serous Membranes.*
2. *The Parenchymatous Substance.*
3. *The Mucous Membranes.*

621. In each of these textures, again, we endeavor to trace the condition of the *circulation*, the degree of *cohesion*, the *interstitial deposits*, the *aggregated deposits*, &c.

622. In the *Serous Membranes* we observe

1. *Injection.*
2. *The effusion of Serum.*
3. ———— *Lymph.*
4. ———— *Blood.*
5. ———— *Pus.*

623. In the *Parenchyma* we trace

1. *Injection.*
2. *Induration.*
3. *Softening.*
4. *Hypertrophy.*
5. *Atrophy.*
6. *Suppuration;*
    1. *Abscess.*
    2. *Infiltration.*
7. *Apoplexy*, &c.

624. In the *Mucous Membranes* we observe

1. *Softening.*
2. *Ulceration.*

3. *Hypertrophy*, &c.

625. In *all* we look for

1. *Tubercles.*
2. *Scirrhus.*
3. *Encephalosis.*
4. *The "Matiére Colloide."*
5. *Melanosis.*
6. *Fibrous Tumors.*
7. *Cysts*, &c.

626. Each of the organs has its peculiar alterations, a List of which will be furnished in the Table of Contents, to which I would, therefore, especially direct the attention of the student, as his guide, when about to proceed to the post-mortem examination of any case which may have fallen under his notice.

627. I have thus sketched the principal *Sources* of the Diagnosis of Diseases. I now proceed to treat of Diagnosis still more practically. In doing so, my principal object is to furnish the young student with a concise view of the objects which will present themselves to his notice in his actual visits to the wards of his Hospital, or the chambers of the sick.

THE

PRACTICE OF DIAGNOSIS.

INTRODUCTION.

OF THE OBJECTS OF DIAGNOSIS, AND OF THE DIAGNOSTIC ARRANGEMENT.

1. THE Diagnosis of diseases, as I have already stated, constitutes the first part of the office of the physician, in his actual visits to the sick.

2. With the diagnosis must be associated correct views of the nature of the disease, or the *pathology*, and a just appreciation of the powers and condition of the patient, or, to use a neglected phrase of great practical value, the "*constitution*." It is in this manner alone that we can be led to the ultimate object of the physician, the correct appropriation and adaptation of the remedies, or the *therapeutics*.

3. Having distinguished the disease from all others, the physician has still many arduous duties to perform: the nature, the stage, and the extent of the disease must be determined; the organic changes it may have induced; the effects it may have had on the vital functions and actions; the devastations it may have occasioned in the powers of the general system.

4. These points must be reconsidered at each visit. The peculiar actions of the disease, the effects induced on the structure of the part principally affected, and on the functions and powers of the system, vary from day to day. They must be accurately and assiduously watched and traced.

5. But even this is a simple view of the subject compared with what actually occurs in practice. Very few cases of disease are *simple*. Generally more than one organ is affected, and the principal disease is, either from the commencement, or in the course of the affection, complicated with others, seated more or less remotely. I am quite of the opinion of M. Louis: "Il n'arrive probablement jamais que des individus qui meurent d'une maladie dont le siège est bien déterminé, n'offrent des lésions que dans l'organe primitivement affecté."* Having detected the principal disease, we have, therefore, continually, daily, to inquire what others, what *complications* there may be.

6. The complications may consist either in functional or structural changes induced in an organ or organs not originally affected, or in the condition of the general system, its various combined functions, and its powers.

7. One source of complication, which operates in the course of the disease, is that arising from the very remedies employed. We have continually to inquire whether a given phenomenon is the effect of the disease or of the mode of treatment,—whether it be the effect of the morbid actions or of the remedial agents.

8. Besides the actual complications of the disease, there is a further interesting inquiry into its remoter consequences, or the *sequelæ*. These are frequently little less important than the original disease, and its earlier complications.

9. Complicated as this view of the diagnosis and of practice may be, it is rendered easy and familiar to the student by proper arrangements, and to the practitioner by the force of habit. It will be one particular object of the present work to offer such arrangements of the sources and objects of diagnosis as may be useful to the young and inexperienced, for whom it is entirely destined.

10. The disease, the complications, and the sequelæ, may consist in mere functional, or in structural changes.

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* Récherches de Gastro-entérite, tome i, p. 419.

11. The morbid changes of function constitute the symptoms of the disease, and sometimes, doubtless, the entire disease.

12. Morbid changes of function, and occasionally of structure, are not unfrequently the effects of remedies employed. I have treated of such effects of undue blood-letting, at great length, in works recently published.*

13. The morbid effects of some remedies, as forcibly illustrated in the cases of excessive loss of blood, of the erethismus mercurialis, &c. afford, indeed, new examples of states which must be early distinguished and identified, if we would save our patient from the imminent danger of a repetition or continuation of the remedy. Mr. Brodie observes, in reference to the treatment of injuries of the head:†—"Where bleeding has been carried to a great extent, symptoms frequently occur which in reality arise from the loss of blood, but which a superficial observer will be led to attribute to the injury itself, and concerning which indeed it is sometimes difficult, even for the most experienced surgeon, to pronounce in the first instance to which of these two causes they are to be referred." Dr. Bateman‡ remarks on that effect of mercury, termed erethismus mercurialis, in his own case:—"It is evident that the features of the malady are not sufficiently known, even to the most enlightened members of the profession; for the failure on the part of the medical advisers, in the instance about to be related, to recognize its first symptoms, and the consequent repetition of the dose of the poison, after its commencement, had nearly proved fatal." I shall never forget a tragical instance of the effects of digitalis, under precisely parallel circumstances. Other instances of the morbid effects of remedies are afforded by purgatives, opium, quinine, &c. It is thus, as I have already stated, frequently an interesting question, as involving the safety of the patient, whether a given symptom belong to the

* See Researches on the Morbid and Curative Effects of Loss of Blood. See also the Medico-Chirurgical Transactions, vol. xiii, and xvii.

† Medico-Chirurgical Transactions, vol. xiv, p. 382.

‡ Medico-Chirurgical Transactions, vol. ix, p. 220.

disease or to the remedy,—whether the former be unsubdued, or the latter be already given in excess.

14. The study of morbid changes of structure must be pursued in a new manner, before it can reflect all the advantages which it may do upon the practice of physic—that is, in connexion with the previous morbid actions; otherwise, how can they be anticipated—prevented? The very nomenclature must be changed. Certain morbid structures are found in febrile, in eruptive, in inflammatory, in scrofulous, in hæmorrhagic, diseases; all have alike been designated as inflammatory, and there have been interminable disputes whether they be causes or effects. The true mode of pursuing this subject is, to associate the morbid change with the previous disease, and, as much as possible, with its symptoms, its periods, its degrees of severity, &c. just as, during our attendance on the sick, we should each day inquire—what is, at this precise period, the probable state of the structures?—of the constitutional powers?

15. This is the more essential, because any given morbid change of structure is seldom or never met with in patients, as in books, distinct and isolated. It seems probable, indeed, that the solids, the fluids, and the nervous system, are variously but simultaneously involved in all diseases. The morbid change is seldom confined to a part—an organ. Certain morbid appearances, and certain associations of morbid appearances, are met with in fevers, in the eruptive diseases, in inflammations, in scrofulous or tuberculous affections, in dropsies, in hæmorrhages, &c. to which my attention has been forcibly drawn, and to which I wish to draw the attention of the profession. Such *forms* and such *associations* of morbid changes constitute *the* disease. Each of such forms is *peculiar*. The same change of structure observed in different diseases, according to our usual phrascology, is not, in fact, the *same*. The inflammatory affections of the skin, which occur in scarlatina, in rubeola, in variola, are not the same. In like manner morbid changes of structure, observed in febrile, inflammatory, and other diseases, although designated by the same term, are not in truth the same. It is on this account that I have rather

chosen to speak of morbid changes as febrile, exanthematous, inflammatory, &c. for in this manner alone do we identify such morbid changes, and associate them with the individual disease. I have no doubt, too, that by a diligent and careful scrutiny such changes of internal structure will, like the appearance on the skin, be found to be peculiar in each disease. We should not be satisfied in speaking of the cutaneous affection in variola, rubeola, and scarlatina, as mere inflammation. On the contrary, we carefully preserve the idea of difference, of peculiarity. The same observation applies to the internal changes of structure. The situation, as well as the character of these affections, is peculiar. In typhus, we look for an affection of Peyer's glands; in rubeola, for bronchitis; in scarlatina, for affections of the throat, &c. But it still remains to be shown, that in each and every disease, the very morbid change of structure itself is peculiar.

16. There is another view of this subject. Such changes may occur in a given series, or with a given course of the disease; and this series may flow from the original causes, as successive local causes and effects, as the effects of remedies, or from the condition of the system: some are even cadaveric. In fever, we may first have ulcerations of the intestines, then hæmorrhage, as a consequence; then, as further consequences, the sinking state, and its effects upon various organs; or we may have the sudden perforation of the intestine, or the slow development of tubercles. Of what value is abstract morbid anatomy, undetected during life, unassociated with the history, the symptoms, and the effects of remedies, untraced to the individual disease and its various periods?

17. Diseases do not, like the objects of natural history, admit of being divided into species, which are continually reproduced in nature. They consist, on the contrary, of mere varieties or individuals, which never recur in precisely the same form. They do not even admit of being viewed in this degree of simplicity; they are, on the contrary, not only continually varying, but they are continually more or less complicated with each other, in combinations still more varied. The varieties of diseases become yet more numerous, by the con-

junction of the same or different diseases concurring in several parts. And, lastly, every case partakes of a peculiar and individual character, impressed upon it by the peculiarities of the constitution, age, and sex of the patient; the season of the year, the state of the atmosphere, &c.

18. The investigation into the state of the "*constitution*" of the patient, is one which has been greatly neglected, and which must be studied anew. It is to this department of knowledge that Celsus alludes in the following paragraph:— "Ob quæ conjicio, eum qui propria non novit, communia tantum intueri debere; eumque qui propria nosse potest, ea quidem non oportere negligere, sed his quoque insistere. Ideoque, cum par scientia sit, utiliorem tamen medicum esse amicum, quam extraneum."* It is to this department of medical knowledge that I would particularly call the renewed attention of the profession. Every physician feels how much easier it is to prescribe for a patient for whom he has frequently prescribed before, than for a stranger. The habit of such a patient in regard to the kind and severity of the disease, and in regard to the power of supporting important remedies, is familiarly known to him. There is in every one a certain *idiosyncracy*, to which it is highly important to attend with scrupulous care. This notion is become antiquated of late; it is nevertheless founded in truth, and will meet with acceptance, as an old friend, by all practical physicians.

19. With all these sources of variety in disease, it is essential that the physician should be familiar; it is therefore necessary that this extensive subject should be simplified for the sake of the student and the young practitioner, who must be led through its elementary portals to view the complicated structure of the temple of medical science within; or, to employ simpler terms, we must first treat of diseases viewed simply and distinctly, before we proceed to detail the circumstances of multiplicity and complication under which they occur in nature. We must then lead the student on to contemplate dis-

* Præf.

eases as they actually occur; as almost universally complicated; as involving the general system and its various parts; or as affecting one particular organ principally, but the rest also consecutively.

20. Each disease must be investigated with a particular reference to

I. *The Changes of Structure.*

II. *The State of the System.*

III. *The Effects of Remedies.*

21. Each disease must be further traced in its *complications* and *sequelæ*, which, in their turns, consist in

I. *Effects of the Disease itself.*

II. *Morbid Effects of Remedies.*

III. *The Development of New Diseases.*

22. Each of these complications and sequelæ manifests itself in

I. *Changes of Function* and

II. *Changes of Structure.*

23. In pursuing the diagnosis, I purpose, after every enumeration of a disease, to add some of these terms. The paragraph will then be continued by the further addition of what is known on that topic, in regard to that disease. How many blanks there will be I need not say; but, whenever such a blank does occur, a note of interrogation will at once express that fact, and suggest a subject of investigation for new inquirers.

24. As a first example, I will adduce the case of Fever. This term, derived from *ferveo*, merely means heat of the general surface. Such a condition occurs in many diseases; but the term fever has been restricted by physicians, ancient and modern, to denote certain diseases, practically and really distinct from all others.

25. In every case of fever, we have, first, carefully to inquire into the changes of structure, the condition of the general system, the immediate effect of remedies; in the next place, we have to mark the remoter effects of the disease, the effects of the remedies, and the development of new diseases. Each of these may consist in functional or structural changes.

26. It rarely happens that fever consists in mere febrile movements of the system. There are usually complications with the general febrile state, of affections of the head, chest, and abdomen; and it has been long disputed whether these affections be primary causes or secondary effects of the fever; and much that is just has been argued on both sides of the question. It is singular that no such dispute has been raised in regard to a class of fevers which I shall designate the eruptive. Yet it appears to me that the rash and the sore throat of scarlatina, and the rash and the catarrh of rubeola, and the other complications of these and of other febrile diseases, occupy the very same rank as the various local affections, whether of function or of anatomy, which we observe so constantly in other fevers. They occur alike in the *course* of these several diseases, and doubtless occupy the place both of effects and of causes in the entire disease. The object of greatest moment in regard to the dispute, is to lead the young practitioner to observe accurately, and to watch carefully, in order that he may early detect these complications in their varied form and extent, and promptly apply the appropriate remedy.

27. This concluding remark may be applied to the Eruptive Fevers. In the first days they cannot always be distinguished from other forms of fever, and during their course, and after their more wonted course, the same watchful observation is necessary to detect topical complications. This is especially true of variola, and scarcely less so of rubeola, of scarlatina, of erysipelas, &c. The complications of the eruptive febrile diseases are principally two: a peculiar inflammation and its consequences; and tubercles. The former are acute at first, the latter insidious.

28. Similar remarks apply to the next class of diseases to be mentioned, viz. Inflammations. Inflammation is apt, although far less so than fever, to be complicated. We frequently on dissection find inflammation of more organs, of more cavities, than one. This is particularly true of protracted inflammation.

29. I regard the view of fever and of inflammation which I am endeavoring to sketch, as applicable to all derangements of

the system without exception, in various degrees, and as one of the most important, and least cultivated, to which the attention can be directed. The actions of the system cannot be deranged in any way without the danger, daily increasing, of topical disease, in one or more organs. Most observed in fever, least in inflammation, this tendency obtains in all diseases, and in all disturbances of the system, only in varied degrees, and in various modifications. To this important subject I shall have frequent occasion to recur in the following pages.

30. Arthritis is another disease which involves an affection of the general system, and of various organs or parts, with that principally affected. How much has been said, and how little is really well and truly known on this subject! Not being a disease of hospitals, the morbid anatomy has not been well cultivated. No branch of physic is still so much in need of a philosophical investigation as that of Gout.

31. Very similar observations apply to another disease, somewhat better known, indeed, but still involved in much doubt and uncertainty, viz. Rheumatism. The connection of rheumatism and disease of the heart is well known to the physicians of this country; but the attention of our neighbors in France has not been sufficiently fixed upon this topic. And how does confusion reign in regard to the other internal rheumatic affections!

32. There is a subject entirely neglected by the profession, which I must bring particularly before the reader in this work. It is that which I have designated Irritation. Much confusion exists in regard to the sense in which this term is to be employed in medicine. The French pathologists appear to mean by it only a lower degree of inflammation than that to which the latter term is confined. Now a question of mere degree does not require a new designation, but merely an epithet. Besides, it must appear to all, that from the very signification of the word, the term irritation ought to be used in a sense totally different from that of inflammation.

33. Without entering further into this discussion, in this place, I shall briefly explain the manner in which I purpose to use this term, and I shall do so by an unequivocal example.

I will suppose a calculus existing in the gall-duct, or in the ureter. It may prove the source of much suffering,—of pain,—of sickness. This is a case of irritation. The calculus is the cause; the pain the immediate, the vomiting the more remote, effect. All this is very simple and intelligible. There is an example of irritation less known, less acknowledged, but not less unequivocal. It consists in a morbid condition of the intestinal contents, which proves a source of varied suffering, chiefly in the abdomen or in the head,—and resembling acute inflammation of those parts.*

34. Next to irritation, we must consider the case of Exhaustion, or of Inanition, from loss of blood or other causes. As in so many other morbid affections, the general system and different organs, are affected in this disease, but especially the head and the heart.† Like irritation, exhaustion has long been mistaken, in its effects, for some inflammatory diseases. Both these cases should be constituted, like fever, inflammation, &c. into *genera* or *classes* of disease. The former are scarcely less frequent or less important than the latter, and the diagnosis is one of the utmost moment.

35. Nearly allied both to irritation and exhaustion are Acute Dyspepsia and Chlorosis. Conjoining a marked affection of the general system with equally marked topical affections, they, like so many other diseases, must be viewed in the light of classes rather than of individuals. It is highly important that the young physician should be familiar with both their general and their local forms.

36. The same observation applies to Hysteria. Consisting originally in intestinal, or uterine, or, as some say, spinal irritation, and inducing peculiar effects upon the nervous and muscular systems, hysteria is not only a class of disease, but a class involving almost as many forms as that of inflammation itself.

37. In like manner, Scrofula or Tubercles are rarely con-

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* See the "Researches," already quoted, p. 210.

† Ibid, chap. iii, and p. 115.

fined to one organ. There is a general affection of the whole system,—the cause?—the effect? of this disease, and an affection of one or various organs. In our despair of curing tubercle, we should not neglect the study of the disease in this peculiar aspect. Such a study leads to an early diagnosis, and this always redounds to the physician's reputation, and constitutes, indeed, his best, his most just title to it.

38. The disease, still so little known, designated Melanosis, affects various organs simultaneously.

39. That disease, known under the designations fungus hæmatodes, encephaloid tumor, &c. and which I shall denominate Encephalosis, as at once the shortest and most distinctive, is, like so many others, one of the whole system, and apt also to occur simultaneously in various organs.

40. Scirrhus, and its consequence, Carcinoma, is also apt to occur in different organs, especially organs of the same system, and it spreads its awful ravages along the absorbent vessels and glands. Dr. Farre detailed an interesting case in his Lectures, from Sir Astley Cooper, of scirrhus occurring simultaneously in the uterus and the mamma.

41. These diseases must next be arranged according as they affect the different important cavities and organs;—the head, the chest, the abdomen; the brain, the lungs and the heart; the organs of the digestive, urinary, and generative systems.

42. Morbid actions in one organ almost always induce morbid conditions of another or others, by *sympathy*. This subject, if confined to purely practical views, still affords scope for most useful and important investigation. How often, for instance, is sickness, or torpor of the bowels, disregarded as a trifling event by the young and inexperienced, when it ought to awake the most serious alarm for the state of the brain,—especially in children. Headache and vertigo, on the other hand, are frequently sympathetic affections from derangement of the stomach and the intestinal canal. The terms sick-headache and stomach-cough are not without their foundation. And it is not improbable that one form of epilepsy, and that true asthma, *originate* in derangements of the stomach and bowels.

43. Besides the complications and sequelæ to which I have adverted, as taking place in various febrile, eruptive, inflammatory, and other diseases, there are others of a different kind, arising not so much from morbid action, as from interrupted function in one or more organs: thus, disease of the heart, of different kinds, is apt to induce such derangement in the circulation, in the head, the lungs, the liver, the alimentary canal, the cellular membrane, &c. as may lead to congestion, rupture, or effusion. Certain diseases of the head impede the functions of the lungs, the stomach, the intestines; certain diseases of the liver lead to dropsy; certain states of the kidney, to coma. To this subject I shall have many occasions of reverting in the following work.

44. There is still another species of complication. It occurs when an internal organ partakes of the condition of the external teguments. It is seen in erysipelas affecting the head, and in variola and scarlatina.

45. Besides the complications and sequelæ, which are apt to occur in all diseases, there is an event which only takes place in a few. It is designated *metastasis*, or translation. It consists in the transfer of the disease from one part or organ to another. It is observed in rheumatism and gout. But it is seen most of all in the secondary effects of intestinal irritation, and in hysteria, of which, indeed, it constitutes a marked characteristic. A part or organ most affected by the disease to-day, may be entirely free from it to-morrow; whilst another part or organ previously unaffected, becomes subject to the morbid derangement.

46. Something allied to metastasis is said to be observed in cases in which eruptions, whether acute or chronic, are repelled. One form of erysipelas is emphatically termed the *erratic*.

47. When the objects of study are so numerous, the mode of arrangement cannot but be of the utmost moment; and when the great difficulty in the study is the due and accurate distinction of those objects, the best mode of arrangement is obviously that by which this end is most readily attained.

48. It has been my wish, in the first place, as much as pos-

sible, to arrange and bring before the young physician *every* case which can require his attention in actual practice. In doing this, I have been equally desirous to avoid surcharging these sketches with the names and descriptions of diseases which are more objects of curiosity and over-refinement, than of practical utility. I must be excused for still thinking the terms fever, inflammation, rheumatism, scirrhus, &c. useful and practical designations of disease, just as rubeola, erysipelas, and gout, are so. They, like all other terms in all the sciences, require first to be accurately defined,—the sense in which they are used to be strictly determined; and then I know not that the science or the practice of medicine would gain by an exchange of these terms for others, such as gastro-entérite, hyperémie, &c. &c. &c. terms equally objectionable, as inadequately expressing the nature and phenomena of fever or of inflammation respectively, and not having the sanction of use for their employment.

49. I shall be guided by similar principles in the distinctions which I shall attempt to draw between different diseases. My aim will still be to separate really useful subjects from the curious and the fanciful,—and this, although the former may consist in changes of function, unattended by appreciable changes of structure, and the latter, sometimes, in actual changes in the anatomy: I think the distinction between inflammation and irritation, for instance, of infinitely greater *vital* importance, than that between eccentric and concentric thickening of the heart. I by no means pretend, however, to depreciate the merit even of such discoveries; I only wish to state my own conviction of the comparative value of certain medical facts and investigations, and to express the principle which has guided me in the selection which I have made, and the comparative importance which I have attached to them respectively.

50. Having in this manner endeavored to form a complete collection of diseases, the next question has been as to the mode of arrangement. I have adopted that which has appeared to me at once the simplest and the most practically useful: it has been that of classing them together in the order and manner

of their external similarity. I have designated this mode of arrangement the *diagnostic arrangement*, as being that which immediately suggests the objects and the means of the diagnosis. Two or three diseases placed closely together, for that very reason require to be distinguished with peculiar care. A disease placed alone, on the other hand, however difficult of cure, presents no difficulty in the diagnosis. Having formed a conjecture, rather than an opinion, of a given case, we have but to refer to this classification, to discover what difficulties in the diagnosis do exist, what dangers beset our path—as the mariner learns from his chart the situation of rocks and sand-banks—and we are immediately led to look for the means of avoiding them.

51. It is said that there are more than fifteen hundred distinct varieties of the rose. It seems almost impossible that such a fact should be established; for when the number and similarity of the objects are so great, the distinction, identification, and enumeration of them, must be a matter of extreme difficulty. This difficulty is diminished almost infinitely by the simple means of bringing such objects together, and placing them *vis-a-vis* each other, so that they may most readily be compared and contrasted.

52. Such is the plan, such the object, of the diagnostic arrangement of diseases. Diseases which are similar, are, of course, apt to be confounded; the diagnosis can only arise from careful comparison and contrast: this is most readily accomplished by arranging such diseases, as it were in parallel lines.

53. The first question which occurs in regard to the arrangement of diseases, is the distinction between symptoms and real diseases. The same affection sometimes occupies both of these ranks. For example, how often is dropsy a mere symptom; how often is it a distinct disease. It will frequently happen that the very same affection will be found arranged both amongst the *symptoms* and amongst the *diseases*.

54. It may also frequently occur that the same disease, as inflammation and hysteria, may, in their different forms, resemble different diseases. In this case, too, the same disease

must be placed in more than one part of the arrangement; perfection of classification being made to give way to practical utility.

55. The diagnosis and identification of diseases are, in this manner, greatly facilitated. This effected, and not otherwise, our knowledge of the pathology—of the morbid anatomy, becomes available.

SECTION I.

THE DIAGNOSIS OF THE DISEASES OF SYSTEMS.

CHAPTER I.

THE DIAGNOSIS OF FEVERS.

56. If it be true that few diseases of an individual organ exist uncomplicated, it is especially so in regard to Fevers. In fact, our task of diagnosis is only half performed, when we have ascertained the case to be fever—a special form of fever. The complications may, mediately or immediately, be the cause of death. If these be undetected, or undistinguished, the first part of the diagnosis will be unavailing. In the course of fevers, the early detection of a complication is therefore of the utmost moment. This will appear very obvious on reading the subsequent pages. It will also appear of the greatest importance to cultivate a habit of watching and of renewed examination, for such complications.

57. Before I proceed to the actual diagnosis of fevers, it may be well to present the reader with such an arrangement of the different kinds of fever, as may conduce to the object we have in view.

ARRANGEMENT OF FEVERS.

I. Continued Fevers.

i. Synochus.

1. *The Acute Form.*
2. *The Typhoid Form.*
3. *The Protracted Form.*

ii. Typhus.

1. *The Milder Form.*
2. *The Severe Form.*
3. *The Sinking Form.*

II. Periodic Fevers.

Intermittent.

1. *The Quotidian,*
2. *The Tertian,*
3. *The Quartian,*
4. *The Reduplicated,*
5. *The Remittent, Forms.*

58. The object of every work like the present, must be to disentangle the subject of which it treats, from the maze of useless terms and distinctions, and to present it to the reader in its simplest and most practical form. There is no question in which this is so necessary as in that of fevers. There is none in which there has always been such discrepancy of opinion amongst physicians. I think all continued fevers may be comprised under the two designations Synochus and Typhus, according to the preceding arrangement; whilst to confound all under the single designation of Typhus, as is done by the late Dr. Bateman, is to involve the practical and real distinctions of fevers in insuperable difficulties. I shall now proceed to a detail of the characteristics of the two kinds of fever which I have enumerated.

I. SYNOCHUS.

59. This term is employed to designate the *common fever* of this climate, as it arises from ordinary causes. It was used in this sense by the late Dr. Willan;* and some term distinctive of such a form of fever from typhus, is essentially necessary to the inquiry into the nature of fevers.

60. Synochus assumes several distinct forms: the most frequent form may be designated the *acute;* in the heat of summer, it is apt to be complicated with *bilious* vomiting and diarrhœa and yellowness of the conjunctiva; in the delicate and in the aged it frequently becomes *typhoid;* and it is not unfrequently protracted for many weeks in a "*slow nervous*" form.

I. *The Acute Form.*

61. I. *The History.* The morbid affection which I propose to designate by the term Synochus, occurs from fatigue, anxiety, and watching, as in unremitted attendance on the sick; from long exposure to cold or rain, as in taking long journeys, or, as I have often seen, in the labors of the harvest; from extreme errors in diet, &c. It usually comes on immediately after exposure to one of these causes, with chilliness, febrile heat, flushing, &c. Its duration is from ten to one and twenty days.

62. II. *The Symptoms* enumerated more fully are the following:—Flushing and tumidity of the countenance, injection of the conjunctiva; heat, softness, and tumidity of the skin generally; the tongue is loaded, white, generally moist, swollen, and indented; the breath tainted. There are aching pains, lassitude, and muscular debility; headache; intolerance of light or sound, and, in the erect posture, vertigo or faintishness. The respiration is hurried; the pulse frequent, full, and soft; there are anorexia and constipation.

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* See Reports on the Diseases of London.

63. III. *The Complications* usually seen in this affection are,

I.—1. *Herpes Oris*, and

2. *Herpetic Sore Throat;*

but besides these, there is occasionally,

II.—1. *Encephalic,*

2. *Thoracic, or*

3. *Abdominal, Inflammation.*

And in summer there are frequently,

III.—*Bilious Vomiting and Diarrhœa.*

64. IV. *The Effects of Remedies.* The state of the system is such as to admit of the flow of a moderate quantity of blood without syncope,—generally about *fifteen* ounces.

65. V. *The Morbid Anatomy* of the acute form of Synochus is unknown, such cases seldom or never proving fatal.

II. *The Typhoid Form.*

66. I. *The History.* The causes of the typhoid Synochus are similar to those of the other forms of this fever; but the subjects are, usually, the feeble, females, the aged, &c.

67. II. *The Symptoms.* In typhoid Synochus, the surface is less heated, the tongue becomes brown and dry, and the teeth affected with sordes, and there are delirium, coma-vigil, or subsultus; but there is rarely purpura, or tympanitis.

68. III. *The Morbid Anatomy.* This is not distinctly ascertained. There is an absence of the ulcerations of Peyer's gland, which appear to constitute the essential anatomical character of true typhus.*

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* The reader is referred to an Essay, by the author, published in the Medical Gazette, for September 15, 1832, for a fuller discussion of this question. The conclusions deduced from the whole argument are these:

1. That there is a form of common fever, or *synochus*, which arises from harrass, anxiety, and other similar causes, which is entirely different from *true typhus;* and, consequently, free from the dothinentérite or disease of Peyer's glands.

2. That *typhoid* symptoms not only occur in this fever, but in many other diseases, as phlebitis, erysipelas, after operations, accidents, &c. especially in *old persons.*

3. That when these cases are abstracted, the remaining typhoid cases are principally, but still probably not entirely, *true typhus*, in which the dothinentérite may,

III. *The Protracted Form.*

69. I. *The History.* This form of Synochus comes on more slowly, and after a still more protracted exposure to the causes already enumerated; from disappointment and grief; from want and poverty, &c. Its duration is frequently protracted through six, eight, ten, or even twelve weeks.

70. II. *The Symptoms.* The countenance, occasionally flushed at first, becomes shrunk, wan, sallow, and tremulous; the general surface shrunk, dry, harsh, and exfoliating; the hands are rough and harsh; frequently a circle of redness and burning is observed extending round the palm; there are muscular tremor and debility, then headache or vertigo, delirium or coma; the pulse becomes frequent and small; the respiration and the articulation are tremulous; the tongue becomes brownish and dry in the centre, or morbidly red, smooth, and dry; there is sometimes vomiting or diarrhœa; the urine usually deposits a copious pinkish sediment.

71. III. *The Complications* most frequently seen in this form of the common fever, are,

I.—*Aphthæ of the Mouth and Throat.*
II.—*Chronic*—1. *Cephalic,*
2. *Thoracic, or*
3. *Abdominal, Inflammation.*
III.—*Tubercles.*

72. IV. *The Morbid Anatomy* of protracted Synochus, as distinguished from Typhus, is unknown.

II. TYPHUS.

73. This fever appears under three forms: the mild, the severe, and the sinking.

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however, occasionally be absent, as the rash is sometimes absent in scarlatina, and the pustules nearly so in small pox.

4. That the symptoms of *true typhus* even, do not arise from the presence of the dothinenteríte, but rather coincide with it, both arising from one and the same cause; and very probably from the condition of the circulating blood.

74. I. *The History.* Typhus is sometimes epidemic and sometimes endemic; its causes are contagion (?); malaria (?); the air of crowded cities; deficient and unwholesome food. It usually begins rather insidiously, and gradually assumes one or other of the forms just mentioned and about to be described. It attacks the young chiefly.

I. *The Mild Form.*

75. I. *The Symptoms.* The mild form of typhus usually begins with pallor, languor, and tremor, muscular debility, chilliness, alternating with febrile heat, and perhaps perspiration. There are headache and vertigo; the pulse is rather frequent; the tongue is whitish, and apt to be dry; there are anorexia, and constipated or relaxed bowels. This condition may continue for a fortnight, and gradually subside.

76. II. *The Complications* consist of

1. *Cephalic,*
2. *Thoracic, or*
3. *Abdominal, Inflammation.*

77. III. *The Effects of Remedies.* There is early syncope on abstracting blood in the erect sitting posture,—generally on the flow of less than *ten* ounces.

78. IV. *The Morbid Anatomy* of this form of typhus, is, I believe, similar to that of typhus in its severe form, varying only in degree.

II. *The Severe Form.*

79. I. *The First Symptoms* of the severe form of typhus are chilliness and febrile heat, early and peculiar muscular debility, and mental depression; the countenance expresses languor and anxiety, and is either pallid or slightly flushed; the articulation, the manner of protruding the tongue and of holding out the hand, and every muscular motion or effort, is attended with a peculiar tremor; there are headache, vertigo in the erect posture, delirium, and somnolency; the temperature of the general surface is only slightly augmented, and there are not unfrequently coolness and moisture. The tongue

is whitish, and apt to become brown and dry; there is complete anorexia, sometimes constipation, sometimes a degree of griping and diarrhœa, and the alvine evacuations are occasionally mingled with slight portions of mucus, or blood.

80. II. *The Subsequent Symptoms* are tremor of the countenance, with dryness of the lips, sordes over the teeth, and suffusion of the eyes. Every thing in motion and posture denotes extreme muscular and nervous debility: the articulation is indistinct, the hand is held out tremulously, the tongue is protruded with effort, and is often not drawn in again, from mental torpor; the tremor passes into subsultus, or spasm; the patient falls into the most prone position, unable to support himself even on the side, and is perhaps constantly occupied in picking the bed-clothes. There are delirium, or somnolency, or alternations of these two states, or violent delirium, or deeper stupor. The tongue becomes encrusted, deeply fissured, brown, and excessively dry; the lips are also frequently fissured, and bleed, and there is frequently epistaxis. The skin is various—sometimes cool and moist, sometimes of slightly elevated temperature, frequently beset with miliaria, especially over the neck and thorax, and with petechiæ more generally. The pulse is usually frequent, and easily compressible; there is frequently a sonorous rattle, with or without cough or mucous expectoration; there are generally intestinal pain and distention, and diarrhœa, with dark, offensive, flatulent, mucous, bloody, involuntary or unconscious evacuations. The urine is frequently partly retained with distention of the bladder, and partly passed unconsciously. The integuments over the sacrum are apt to be affected with gangrene from pressure and the irritation of discharges, and blistered parts are apt to slough.*

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* Typhus fever is somewhat similar to the following diseases, with which, therefore, it must be carefully compared and contrasted:

1. *Phlebitis.*
2. *Encephalic disease.*
3. *Delirium tremens.*
4. *Muco-Enteritis.*

81. III. *The Morbid Anatomy* of typhus fever seems to consist in a diminished cohesion of the particles which constitute the solids and fluids of the body; hence we find,

82. 1st. Softening of the parenchymatous substance of all the organs—the brain, the heart, the liver, the spleen, the kidney, &c.

83. 2dly. Softening, thinness, and ulcerations of the mucous membranes—of the epiglottis, larynx, trachea, pharynx, œsophagus, stomach, bowels, &c.

84. 3dly. Rupture of the textures constituting the skin, and the serous and mucous membranes, and hence petechiæ, vibices, and effusions of blood, of bloody serum, &c.

85. 4thly. Want of cohesion in the blood itself; the coagulum of which is soft, uncupped, and occasionally covered with a buff of the consistency of mere jelly.

86. 5thly. That change of structure which alone is constant, or nearly so—is inflammation and ulceration of Peyer's glands,

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The diagnosis of these affections from typhus fever, will be best effected by carefully comparing and contrasting their characters respectively in every point. This plan will also avoid the necessity for much repetition throughout this work, and form one of the most useful exercises in which the student can be engaged. I shall, in this place, only observe that no disease except typhus *conjoins* chilliness, febrile heat, early vertigo, somnolency or delirium, muscular debility and tremor, the peculiar state of the tongue, of the skin, of the bowels, *petechiæ*, *tympanitis*, &c.

1. Phlebitis is generally traced to a local wound or injury, except it occurs as a peurperal disease. There are a peculiar violence of rigor, anxiety of countenance, appearance of sinking, delirium, frequency of the pulse, hurried respiration, vomiting, diarrhœa, &c.

2. In encephalic disease there is generally none of the symptoms really peculiar to typhus: the muscular strength is unimpaired; the pulse, the tongue, the general surface, the state of the bowels, are comparatively little affected, and there are more simply the symptoms of local affection of the brain.

3. Delirium tremens, notwithstanding the two symptoms implied in its designation, is very different from typhus: the tremor is less accompanied by debility, the delirium less attended by stupor; there is, on the contrary, considerable activity and constant wakefulness, the tongue and skin are moist, the breath tainted by some spirituous liquor, and the disease is readily traceable to its cause.

4. In muco-enteritis there is less febrile action, less debility, and more nausea, vomiting, and diarrhœa. This disease occurs in subjects of every age, frequently from some known cause: there is none of the peculiar state of mind, muscle, tongue, skin, intestinal canal, &c. so characteristic of typhus.

especially occupying that part of the ileum situated near the cæcum, but extending over a considerable part of the intestines. This point seems to be established by the labors of Roederer and Wagler,* Prost,† MM. Petit and Serres,‡ M. Louis,§ M. Cruveilhier,‖ Dr. Bright,¶ Dr. Carswell,** &c. It has been long disputed whether this affection be the *cause*, the *effect*, or a mere *complication* of typhus fever. It cannot, I think, be justly said to be any one of these. It is a part—an almost essential part—of this fever, and appears to bear the same relation to the entire disease which the rash and sore throat do in scarlatina, and the rash, and the bronchial affection in rubeola.

87. 6thly. These ulcerations appear under various forms, being granular, pustular, fungous, gangrenous, &c.

88. 7thly. With these ulcerations are conjoined enlargement and softening of the corresponding mesenteric glands.

89. IV. The principal *Functional Complications* are,

I.—*Encephalic:*

1. *Stupor;*
2. *Delirium;*

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* De Morbo Mucoso; Goettingæ, 1762.

† Médecine éclairée par l'Observation et l'Ouverture des Corps; Paris, 1804, pp. lv. &c. This is an extraordinary work for the period at which it appeared. The author observes—"M. Bayle m'associa à ses travaux: dès-lors j'espérai du succès."

‡ Traité de la Fiévre Entéro-Mésentérique. Paris, 1813.

§ Recherches du Gastro-Entérite, 1829;—a work which will constitute an ERA in the science of medicine, by introducing numerical precision into its data.

‖ Anatomie Pathologique. Paris, 1830.

¶ Reports of Medical Cases. London, 1827.

** By the liberality of Dr. Carswell, I, as well as many others, have repeatedly seen his incomparable drawings, amounting nearly to *two thousand*; and I have as repeatedly contemplated this gentleman's labors with unmingled admiration. They will long be the ornament of the London University. I rejoice to know that Dr. Carswell is at length engaged in preparing Elements of Morbid Anatomy, with plates, for publication: this work must infinitely surpass every thing of the kind published in this kingdom.

3. *Subsultus;*
4. *Spasm*, &c.

II.—*Thoracic:*

1. *Cough;*
2. *Expectoration;*
3. *Rattle*, &c.

III.—*Gastric and Intestinal:*

1. *Pain and Sickness;*
2. *Pain and Diarrhœa;*
3. *Melæna;*
4. *Tympanitis;*
5. *Symptoms of Perforation of the Intestine.*

90. The symptoms in the complications of typhus are not always commensurate with the structural changes. They frequently depend on the condition of the system at large, of the nervous system, or of the blood.

91. V. The *Structural Complications* are—

92. 1. *Encephalic*, consisting of—1, effusion upon the arachnoid; 2, injection and softening of the cortical and medullary portions of the brain; and, 3, of similar affections of the cerebellum. This complication is slighter in degree, and less frequent in its occurrence, than is supposed.

93. 2. Effusions of lymph, and ulcerations of the epiglottis, the larynx, the trachea, the pharynx, the œsophagus, &c.

94. 3. *Thoracic*, generally slight, and consisting of—1, adhesions, or effusion of bloody serum into the pleura; 2, hepatization, or splenization of the lung; 3, reddish mucus in the bronchia; 4, a livid red color, thinness, and softening of the heart, denoted generally by irregularity and feebleness of the pulse.

95. 4. *Abdominal;* these are—1, softening, thinness, ulceration, and the mamelated state, of the mucous membrane of the stomach; 2, softening of that of the intestines, with constant

ulcerations of the clustered glands of Peyer, and occasional ulcerations of the solitary glands of Brunner; 3, enlargement and softening of the mesenteric glands; 4, softening of the substance of the liver, spleen, kidney, &c.

5. *Perforation of the Intestine.*

96. The *symptoms* of perforation of the intestine are generally *sudden* pain and tenderness diffused over the abdomen, nausea and vomiting, sunken countenance, smallness and feebleness of the pulse, cold perspirations, with pallor over the whole surface, and rapid failure and sinking of the powers of life.

97. 6. The *integuments* covering the sacrum are apt to ulcerate and slough from pressure, and those of parts covered with blisters, from irritation, in a degree which becomes somewhat diagnostic. There is also occasionally erysipelas.

98. VI. *The Effects of Remedies;* and

99. VII. *The State of the System.* There is, comparatively with health, and still more, comparatively with inflammation, little tolerance of loss of blood; syncope is early produced on opening a vein in the erect sitting posture.

III. *The Sinking Form.*

100. I. *The Symptoms.* In the sinking form of typhus, or that designated the congestive, a form little seen in hospitals, there is early coldness of the face and general surface, with a feeble pulse, stupor, deep breathing, extreme debility of the muscular system, so that articulation and all attempts to move are abortive; the eye is sunken, the voice husky, the evacuations perhaps involuntary.

101. This form of typhus is noticed in this place, in order that nothing practically useful may be omitted, and that the student may be aware of a form of disease not of frequent occurrence. It can scarcely be mistaken for any other disease.

102. II. *The Morbid Anatomy;* and

103. III. *The Effects of Remedies* appear to be unknown, or, rather, involved in hypothesis.

II. Periodic Fevers.

INTERMITTENT.

104. I. *The History.* The *Causes* of intermittent fever in its first and subsequent attacks, are the miasmata of marshes, stagnant water, and humid localities, and the north-easterly winds. The disappearance of intermittent fevers from London and its neighborhood, and from other places in which they formerly prevailed, is ascribed by Dr. Willan, and by Sir Gilbert Blane, to the practice of draining, and other improvements in agriculture. The *Course* is marked by successive distinct, cold, hot, and sweating stages; and these are recurrent, every, every second, or every third day, or at other intervals, giving origin to the designations, quotidian, tertian, quartan, &c.

105. 1. The *Quotidian* has an interval of twenty-four hours, a paroxysm of moderate severity, but of long duration, beginning with a slight cold stage, generally in the morning. It is apt to assume the remittent form. It occurs principally during the spring.

106. 2. The *Tertian* has an interval of forty-eight hours, a severer cold stage, a shorter paroxysm, recurrent generally about noon, and followed by much perspiration. This is the most frequent form of intermittent, and is observed to be milder in spring than in autumn.

107. 3. The *Quartan* has an interval of seventy-two hours, a short paroxysm, and a long intermission. The paroxysms usually occur after noon, with a long and severe cold stage, a gentle hot stage, and slight perspiration. The quartan intermittent fever occurs chiefly in autumn, is apt to prove obstinate without having any tendency to assume the remittent form.

108. 4. Intermittent fever sometimes assumes the *Reduplicated,* or merely *Remittent* forms; and sometimes every kind

of *irregularity* in form, and in the intensity of its paroxysms, or of their different stages.

109. The recurrence of the paroxysm may not be always so accurate in point of time and hour, in different cases, as I have mentioned; yet attention to this point, in the same case, is a very important means of diagnosis in obscure cases. The rigors in suppuration and in phthisis have not such sustained regularity of return.

110. II. *The Symptoms.* The paroxysms of intermittent fever begin with yawning and languor, and a sense of creeping along the back; the patient then shivers with cold; the countenance and general surface are pale, shrunk, and cold; there is that state of the skin termed 'cutis anserina,' and the nails assume a livid hue; the respiration is sibilant; the pulse is small and frequent, and perhaps irregular; there are anorexia and thirst; the tongue is dry and clammy; the urine is limpid.

111. The cold stage gradually subsides, and the countenance becomes flushed and tumid, and the eyes injected, whilst the general surface is turgid, hot, smooth, and dry; there are frequently acute pains of the head, throbbing of the temporal arteries, intolerance of light and sound, and delirium; the respiration is frequent, but less anxious; the pulse strong, full, and frequent; there are urgent thirst, with continued dryness of the tongue; the urine becomes high colored.

112. In the sweating stage the countenance assumes nearly its natural appearance; the skin loses its tumidity and heat, and becomes covered with perspiration. The head is relieved, and sleep often supervenes; the respiration becomes free, the pulse nearly natural; the urine deposits a degree of sediment.*

113. The paroxysm over, the patient is left somewhat pale and languid, and there are headache and anorexia. In the commencement of intermittent fever, the apyrexia is, however, sometimes almost free from indisposition.

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* The observations made upon the urine by the older writers on Intermittents, are confirmed by M. Andral, in the Clinique Médicale, Ed. 1, t. i, p. 479.

114. III. *The Complications* of intermittent fever are frequently, like the fever itself, periodic,—intermittent or remittent; and sometimes, without fever, there are similar paroxysms and intermissions, or remissions, of local affections.

115. The principal of these are,

1. *Hemicrania.*
2. *Pain of the Eye-brow.*
3. *Thoracic Pain.*
4. *Splenic Pain and Tenderness.*
5. *Pain of the Testis.*
6. *Other Topical Pains.*

116. These affections sometimes assume a more aggravated form, and there are,

1. *Headache, Delirium, Coma, or Amaurosis.*
2. *Thoracic Pain, Cough, Asthma, or Syncope.*
3. *Colic, Cholera, or Diarrhœa.*

117. These local affections may precede, accompany, or follow intermittent fever; or they may exist variously in the intermittent or remittent form, independently of febrile symptoms. They will be particularly noticed hereafter.

118. The principal permanent complications are,

1. *Enlargement of the Spleen.*
2. *Anasarca.*

119. IV. *The Morbid Anatomy* of intermittent fever seems really to be little known. The spleen is the organ chiefly and most frequently affected; it becomes enlarged. This enlargement is discovered during life by recurrent pain, dulness of sound on percussion of the false ribs of the left side, and, at length, on examining the region of the spleen by pressure. The spleen may remain enlarged, ascend, or descend, and constitute a mode of ascertaining the existence formerly of intermittent fever, without materially affecting the health.

120. V. *The Effects of Remedies.* The influence of the quinine in intermittent fever, pains, &c. is so marked, as to be at once diagnostic of the disease, and suggested for all cases of a distinctly intermittent character.

CHAPTER II.

THE DIAGNOSIS OF ERUPTIVE FEVERS.

121. Since the appearance of the classical work of the late Dr. Willan, and the useful abridgment of Dr. Bateman, nothing seems wanting to the description and portraiture of cutaneous diseases, both acute and chronic. And if to distinguish these several diseases from each other were all that were required, the diagnosis might be said to be almost complete. But this is not all. The treatment of these diseases does not depend merely upon the questions, whether it be rubeola, or scarlatina, or other eruptive fever; but upon the question whether the disease, be it what it may, be complicated with internal organic changes, or modified by constitutional circumstances.

122. These are the really important points for diagnosis, the important questions on which recovery or death depends. And I do not hesitate to say, that, in these respects, but especially in that of the complications, the subject is involved in the most intense obscurity, and offers ample scope for investigation. If there be any thing *peculiar* in these complications, that peculiarity is completely unknown, and must be established by new examinations. If such peculiarities of morbid change require peculiarities in the treatment, this too remains to be ascertained by future inquiries.

123. It has not even been ascertained whether the affection of the mucous membranes be merely inflammatory, or whether it be specific; that is, whether it be rubeolus in rubeola, and scarlatinous in scarlatina, as it is variolus in variola. But I

believe it is so. This observation applies not to the eyes, fauces, larynx, trachea, and bronchia only, but also to the stomach and intestines.

124. But the observation is of still greater moment when it is considered in connection with the other textures, the morbid affections of which, in eruptive fevers, appear scarcely to have been examined at all. Yet it is certain that the arachnoid, the pleura, and parenchymatous substance of the lungs, as well as the mucous membrane of the bronchia and of the stomach, undergo morbid changes in rubeola; that the arachnoid, as well as the parenchymatous, serous, and mucous textures of the thorax and abdomen, the subcutaneous cellular tissue, and the joints, are involved in the course of scarlatina. Yet where do we meet with any satisfactory account of these morbid changes? Willan and Bateman, Rayer and Biett, Laënnec and Andral, are searched in vain for the morbid anatomy of eruptive fevers. There are merely scattered opinions or facts. All is vague, general, and unsatisfactory. A work upon this subject at all comparable to that of M. Louis upon the Gastro-Entérite, would be an inestimable contribution to medical science.

125. But, besides the *complications*, there is another interesting subject of inquiry, especially in regard to eruptive fevers: it is the remoter *consequences* or *seculæ*. These are acute and chronic. And they affect the head, the chest, and the abdomen. They are, principally, *chronic inflammation* and *tubercles*.

126. The science of medicine is not so simple as it has been made to appear. When our books present a faithful portraiture of nature, we shall discover that, both *during* the course and *after* the course of many diseases, we have still to *watch* the patient, if we would early detect diseases which only require to be overlooked and disregarded in their beginnings, to be placed beyond the reach of remedy. I expect much will really be effected in simplifying the subject by the mode which I have adopted of placing these arrangements before the student. The eye, the mind, will speedily become familiarized

with the multitude of events which occur, and then the principal difficulty will be overcome.

127. In the present chapter I purpose to notice those objects of the diagnosis upon which the treatment principally depends: these are, the condition of the system and of the internal organs. In a subsequent chapter I shall compare and contrast the different rashes, with the view of determining the question of the subsequent safety or liability of the individual, in regard to the different contagious eruptive fevers respectively.

ARRANGEMENT OF ERUPTIVE FEVERS.

I. Rubeola.

1. *Vulgaris.*
2. *Sine Catarrho.*
3. *Nigra.*

II. Scarlatina.

1. *Simplex.*
2. *Anginosa.*
3. *Maligna.*

III. Variola.

1. *Discreta.*
2. *Confluens.*

IV. Erysipelas.

1. *Phlegmonodes.*
2. *Erraticum.*
3. *Œdematodes.*
4. *Gangrænosum.*

1. RUBEOLA.

128. Rubeola, besides its ordinary form of ***Rubeola vulgaris***, occasionally occurs unaccompanied by catarrhal symptoms,

when it is designated by Dr. Willan *Rubeola sine catarrho;* at other times the rash which is usually florid becomes livid, when it is called *Rubeola nigra.*

I. *Rubeola vulgaris.*

129. I. *The History.* Rubeola is unequivocally contagious. A latent period of from *ten* to *fourteen* days intervenes between exposure and the development of the febrile symptoms. The catarrh appears on the *second* or *third* day. The rash first appears on the face and neck on the *fourth* day, and on the chest and extremities on the *fifth;* on the *sixth* it begins to decline on the parts first affected, whilst it is vivid on the general surface. On the *seventh, eighth,* and *ninth* days, the rash fades, leaving the cuticle in a state of exfoliation.

130. II. *The Symptoms.* Rubeola is early characterized by the conjunction of fever, and a sensation of stricture across the forehead and eyes, with a disposition to sleep; to these symptoms are added, on the third and fourth days, redness of the eyes, and turgidity of the eyelids and nostrils, a copious flow of tears, and frequent sneezing, a sense of soreness about the throat, hoarseness, a frequent, dry cough, difficulty in breathing, and a sense of constriction across the chest. The rash commences with distinct, red, and nearly circular dots; afterwards larger patches appear, which tend to assume crescent forms. The surface of the skin is gently raised; the wrists and hands papillated; the color of the rash deeper and less vivid than that of scarlatina, being of the raspberry hue; miliary vesicles are frequently seen on the neck, breast, and arms. The general surface is less tumid than in scarlatina.

131. III. *The Complications* of Rubeola are the following:

I.—*Inflammation of the Eyes and Nostrils.*

II.—*Efflorescence on the Throat.*

III.—*Inflammation*—1. *of the Larynx;*
2. *of the Trachea and Bronchia;*
3. *of the substance of the Lungs;*

4. *of the Pleura or Pericardium ;*
5. *or of the Peritonæum.*

IV.—*Sudden attacks of Inflammation of the Brain and its Membranes.*—with or without*

V.—*Acute Inflammation of the Cellular Membrane, with Anasarca.*

132. IV. *The Sequelæ* are

I.—*Chronic.*—1. *Cephalic, or*
2. *Thoracic, Inflammation.*

II.—*Tubercles.*

133. This table of complications and sequelæ should be vividly present to the mind whenever we visit a case of Rubeola. To avoid repetition, I refer the reader to the several chapters which treat of cephalic, thoracic diseases, &c. for the special diagnosis of these morbid affections, whether they exist as simple forms of the disease or as complications.

134. V. *The Morbid Anatomy* of Rubeola, in its simple forms, is, in my opinion, unknown ; that of its complications and sequelæ are supposed to be perfectly similar to that of affections of the several parts enumerated in the preceding table, not rubeolus. Is it so ?

135. VI. *The Effects of Remedies.* Blood-letting is better borne in Rubeola, than in most other eruptive fevers, at least when it is complicated with inflammation.

II. *Rubeola sine Catarrho.*

136. Dr. Willan observes,—" when the measles are epidemical, a few cases occur wherein the eruption goes through its different stages without any cough, difficulty of breathing, or inflammation of the eyes; without much alteration of the

* The retrocession of the eruption from exposure to cold, or the administration of purgatives, is said to occasion delirium, restlessness, difficulty of breathing, pain of the bowels, diarrhœa, and greatly to endanger the patient's life.

pulse, or any febrile symptoms." It does not, then, "appear to emancipate the constitution from the power of the contagion, nor to prevent the accession of the Rubeola vulgaris at a future period."

III. *Rubeola nigra.*

137. Dr. Willan observes—"I never saw the Rubeola vulgaris intermixed at an early period with petechiæ: but it sometimes happens, about the *seventh* or *eighth* day, that the rash becomes suddenly black, or of a dark purple color, with a mixture of yellow." This appearance has continued ten days, in some cases longer, with no other symptoms of fever than a quick pulse and a slight degree of languor.

II. SCARLATINA.

138. Scarlatina occurs under three forms—Scarlatina simplex, Scarlatina anginosa, and Scarlatina maligna.

I. *Scarlatina simplex.*

139. I. *The History.* Scarlatina is eminently contagious. The eruption appears after a latent period of *five* or *six* days, and on the *second* day of febrile symptoms. It consists of a close scarlet efflorescence, and first occupies the face and neck, and, in the course of another day, is diffused over the general surface, the nostrils, the inside of the eye-lids, cheeks, and lips, the tongue, the palate, and the fauces. On the *fifth* day the rash begins to decline; it disappears on the *sixth* and *seventh*, leaving the cuticle in a state of exfoliation.

140. II. *The Symptoms.* The Scarlatina begins with debility, heaviness, and slight chills, which lead to great heat and tumidity of the general surface. Numerous specks, or minute patches, of a vivid scarlet, appear about the face and neck on the *second* day. In the course of the *third* day the efflorescence becomes almost continuous over the whole surface of the body, and of a full scarlet hue, especially on the loins, nates, and in the flexures of the joints. The rash is most vivid in the evening, and on the *third* and *fourth* days.

Some papulæ appear. On the fifth day it begins to decline, the scarlet hue being less vivid, and the interstices between the patches augmented.

141. The tongue is white in the middle, of a scarlet redness at the edges, and marked by elongated vivid papillæ about the point. The face is tumefied. The scarlet efflorescence may sometimes be observed over the tunica conjunctiva, and the eye is bright and humid, but without the flow of tears observed in rubeola.*

II. *Scarlatina anginosa.*

142. I. *The History and Symptoms.* In this form of Scarlatina the febrile symptoms are more severe, the rash appears later, as on the *third* day, and is less diffused, and more in scattered patches; it sometimes vanishes and reappears; its whole duration is longer, and its color deeper, than that of Scarlatina simplex. To the fever and efflorescence are superadded swelling of the tonsils, velum pendulum palati, and uvula, with florid redness, sloughs, and ulcerations. The voice is hoarse and the deglutition difficult, and there is cough.

143. There are frequently headache, delirium, restlessness; great heat, frequent pulse, quick respiration; languor and faintness, nausea and vomiting.

144. II. *The Complications* in Scarlatina anginosa are,

I.—*Affection of the fauces, pharynx, glottis, and larynx.*
II.—1. *Cephalic,*
2. *Thoracic,*
3. *Abdominal, Inflammation, or Congestion.*
III.—*Enlargement and softening of the parotid, sub-maxillary, and mesenteric glands, the kidneys, &c.*

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* Thus—1. The rash occurs earlier in scarlatina than in rubeola; 2. There is greater fever and greater general tumidity of the skin; 3. The efflorescence is more diffused or in larger patches, and more vivid in color, without assuming crescent forms, or being attended with roughness and elevation of the skin; 4. There is sore throat in scarlatina, whilst there is catarrh in rubeola; 5. There is greater tendency to delirium and affection of the head in the former than in the latter.

145. III. *The Sequelæ* are,

I.—*An Affection of the Joints, similar to Rheumatism.*
II.—*Inflammatory Anasarca.*

III. *Scarlatina maligna.*

146. I. *The History.* The rash, in this form of Scarlatina, appears *late*, and is uncertain in its duration: it sometimes disappears in a few hours, and reappears at the expiration of a week, continuing two or three days. In one case Dr. Willan observed its reappearance, in numerous patches, a third time, on the seventh day from the second eruption: it remained two days.

147. II. *The Symptoms.* There are dark-red flushings of the cheeks, fulness and lividity of the neck, and dull redness of the eyes. The efflorescence is usually faint, except in a few irregular patches, and presently changes to a dark or livid red color; it is often intermixed with petechiæ. There are ulcerations of the tonsils and adjoining parts, covered with dark sloughs and surrounded with lividity. The tongue is tender and ulcerates on the slightest injury. An acrid discharge takes place from the nostrils, with soreness, chaps, and blisters, about the nose and lips. The breath is extremely fœtid. The state of the whole system is *typhoid.*

148. III. With these appearances there are in different instances the following *Complications:*

I.—*Deafness, delirium, coma.*
II.—*Rattling, laborious respiration, teazing cough.*
III.—*Constriction of the jaws and dysphagia.*
IV.—*Violent pain of the bowels, diarrhœa.*
V.—*Petechiæ, vibices, hæmorrhages.*
VI.—*Vesications on the hands and feet.*

149. Many patients sink at an early period, without any admonitory symptoms.

150. IV. There is doubtless a corresponding condition of the *Morbid Anatomy.* But, unfortunately, there are few accu-

rate cases of post-mortem examinations in the Scarlatina maligna on record.* There are,

I.—*Ulcerations of the œsophagus, larynx, and trachea.*
II.—*Inflammation, or Congestion, in the—*
1. *Head,*
2. *Chest, or*
3. *Abdomen.*

III. VARIOLA.

151. Variola varies extremely in severity, and, according to the abundance and form of the eruption, is designated the *distinct* or the *confluent*. There is also another form of this disease, the *modified*, which occurs after a previous attack or after vaccination, and of which I propose to treat, in connexion with the Varicella, in the Chapter on the Diagnosis of the Acute Cutaneous Diseases.

I. *Variola discreta.*

152. I. *The History.* The unique cause of Variola is contagion. The latent period is not well ascertained.† There are febrile symptoms, on the *fourth* day of which, the eruption usually appears.

153. II. *The Symptoms.* The early symptoms are febrile chills, heat, and diffuse perspiration; languor, pain of the head and back, and tenderness of the epigastrium. The eruption first appears on the face, neck, and breast, and spreads on the

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* The whole subject is open to new inquiry. The particular condition of the skin, of the mucous membranes, of the parenchymatous textures, of the blood, &c. is still unknown.

† Heberden observes, "Parentibus aliquibus visum est, siquidem unus ex liberis in variolas incidisset, non amovere reliquos, sed sinere ut omnes una manerent in eadem domo, aut etiam in eodem cubiculo. At sexto plerumque die postquam morbus ad ἀκμὴν pervenerit, sani pueri cœperunt ægrotare; unde verisimili fit, hoc potissimum tempore variolas fieri contagiosas, atque idem spatium intercedere ante initium ægrotationis, ac fieri novimus in plerisque inoculatis." He adds, "Quotidianum est, ut ii qui, ut videtur, eodem tempore contagioni objecti fuerint, multum diverso tempore incipiant ægrotare."—Commentarii, pp. 379, 380.

next day over the general surface of the body, the febrile symptoms abating. On the *first* and *second* days of the eruption, (the fourth and fifth of fever,) the pustules are small, hard, and globular, red and painful, separate and distinct from each other, with nearly colorless interstices. They enlarge gradually until the *fourth* day, when they contain a little yellowish fluid and the interstices become red. From the *fourth* to the *seventh* day the pustules expand in breadth, having a depression in their centre, and consisting of fine concentric rings of different hues, and being surrounded by diffused rings of rose-colored inflammation, which coalesce when the eruption is crowded. About the *seventh* day the central depression gives way, and the pustule assumes a globular form. About the *fourth* day there is frequently an increased flow of saliva, and the integuments of the face are apt to become tumid, the eyelids being swollen, and sometimes closed; this tumefaction gradually declines, and, about the *seventh* day, is often replaced by swelling of the hands and feet, the salivation and perspiration ceasing. On the *seventh* day of the rash, the eleventh of the disease, the pustules are fully distended; from this time they begin to break, the fluid issues partially, and at length dries and forms a scab, the cuticle becoming shrivelled, a process which is completed on the face about the *eleventh* day. In a few days more the scabs separate, leaving the subjacent parts of a brownish-red color, and often pitted. The pustules on the arms and hands become flaccid.

154. III. *The Complications* in the Variola discreta are,

I.—*Variolous Inflammation of the*—

1. *Eyes;*
2. *Mouth;*
3. *Throat;*
4. *Epiglottis, Larynx, Trachea and Bronchia;*
5. *Pharynx, Œsophagus, Stomach, and Intestines.*

II. *Inflammation within the Head:*
1. *of the Membranes;*
2. *of the substance of the Brain.*

III.—*Inflammation within the Thorax:*
1. *Pleuritis;*
2. *Pneumonia;*
3. *Pericarditis.**

IV.—*Inflammation of the Peritonæum.*

155. IV. The *Morbid Anatomy* of Variola is amongst the most interesting of the subjects still requiring investigation: it consists of,

156. 1. The pustular form of inflammation of the mucous membranes: of all the mucous membranes, that lining the air passages suffers the most; the whole of the alimentary canal is subject to variolous inflammation, but chiefly the appendix vermiformis cæci.†

157. 2. Inflammation of the serous membranes, in regard to which the *peculiarity* of form is not either established or refuted.

158. 3. Inflammation of the parenchymatous substance of organs, as of the brain, the lungs, &c.

159. V. *The Effects of Remedies.* There are no facts on record calculated to elucidate the question of the effects of remedies.

II. *Variola confluens.*

160. I. *History and Symptoms.* The early symptoms of this form of Variola are *typhoid;* there is delirium, or coma, vomiting, diarrhœa, cool perspiration, labor in breathing, a feeble, frequent pulse. The eruption appears *early*, on the *third* day, and induces less and less permanent relief of the febrile symptoms, which resume their violence on the *sixth* day; it is pre-

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* See Andral, Clinique Médicale, Ed. 2, tome i, p. 30.

† M. Rostan observes, Cours de Médecine Clinique, Ed. 2d, tome ii, p. 201, "J'ai vu un canal alimentaire garni des mêmes pustules que celles de la bouche depuis l'œsophage jusqu'au rectum."

ceded or attended, in many instances, by exanthematous redness. The pustules are more numerous on the face; smaller and less hard and eminent than in the Variola discreta; during a *slower* and less marked progress, their diameters enlarge; they do not retain the circular and orbicular form, but assume an irregular figure, remain flat, and coalesce, so that frequently the face seems covered with one extended and continuous pustule. The interstices are pale and flaccid, and without the rose-colored inflammation observed in the Variola discreta. The contained fluid becomes opaque and brownish, and does not assume the yellow, consistent, and purulent appearance. The pustules at length break, the cuticle shrivels up, the enclosed fluid issues; dark-brown scabs are formed, separate slowly, and leave deep pits. The tumefaction of the face, and the salivation, take place earlier, and are more considerable than in Variola discreta; they abate, and the hands tumefy, about the *seventh* day. On the general surface the pustules are more distinct; but they are less prominent, and the enclosed matter less consistent, than in the former variety.

161. II. *The Functional Complications* of the Variola confluens are,

I.—*Cephalic:*

1. *Delirium;* 2. *Coma;* 3. *Subsultus;* 4. *Spasm, &c.*

II.—*Thoracic:*

1. *Cough;* 2. *Rattle;* 3. *Dyspnœa, &c.*

III.—*Abdominal:*

1. *Vomiting;* 2. *Diarrhœa;*
3. *Melœna;* 4. *Hœmaturia;* 5. *Menorrhagia, &c.*

IV.—*Integumental:*

1. *Petechiæ;* 2. *Vibices;*
3. *Livid Vesicles;* 4. *Gangrenous Ulcers:*
5. *Anasarca, &c.*

162. III. *The Structural Complications* are,

I.—*Variolous Opthalmia.*

II.—*Ulcerations*—1. *of the Mouth, Fauces, & Pharynx;*
2. *of the Stomach, Intestines, &c.*

III.—*Ulcerations*—1. *of the Epiglottis and Glottis;*
2. *of the Larynx and Trachea.*

IV.—*Cerebral Congestion.*

V.—*Thoracic Disease:*
1. *Bronchitis, with bloody mucus;*
2. *Congestion of the Lungs;*
3. *Pleuritic, Serous, Purulent, or Sanguineous Effusion.*

VI.—*Abdominal Congestion.*
VII.—*Glandular Swellings.*
VIII.—*Swelling and Stiffness of the Joints.*

IV. ERYSIPELAS.

163. Erysipelas occurs under four different forms, the *phlegmonode*, the *erratic*, the *œdematous*, and the *gangrenous*.

164. *The History.* Erysipelas is generally preceded by marked derangement of the digestive organs. It has been supposed to be contagious. The gangrenous form has prevailed in some seasons epidemically. It is preceded two or three days by shiverings, which alternate with flushes of heat.

I. *Erysipelas phlegmonodes.*

165. I. *The Symptoms.* This form of erysipelas frequently affects one side of the head and face; at other times it appears upon one of the limbs. In the former case there are languor, drowsiness, and dull aching pains in the head, neck, and back; the tongue is white, the breath tainted, and the bowels disordered. The swelling usually begins on the *second* or *third* day, on the side of the nose, on the cheek, or near the ear; and extends subsequently to the scalp, neck, or breast: it is of a dark red, smooth, and soft, and attended with heat and ting-

ling. The face becomes disfigured, and there is frequently delirium or stupor. On the *fourth* or *fifth* day vesications take place, principally about the central part of the swelling, of unequal size, and irregular base, and containing a fluid at first clear and watery, afterwards straw-colored and opaque, or livid. These vesicles break about the *fifth* or *sixth* day, when the swelling begins to subside and assumes a yellowish hue.

166. Similar appearances take place when the disease affects a limb.

167. The *erratic* form of erysipelas is only peculiar by its milder and wandering character.

II. *Erysipelas œdematodes.*

168. This form of erysipelas is marked by less redness and greater tumefaction than the former. There is also greater tendency to delirium and coma, and to gangrene. It is frequently fatal, with these symptoms, about the eighth day.

III. *Erysipelas gangrænosum.*

169. This form of the disease begins sometimes as the phlegmonous; sometimes as the œdematous. The swelling exhibits a dark red hue, inclining to lividity; it is soft and puffy; phlyctænæ form upon it, containing a dark-brown or livid fluid, whilst the skin at their bases becomes black and gangrenous. On the cheeks and other parts, there are deep ulcerations, with livid edges; a thin purulent fluid is often diffused through the cellular membrane, and sinuses, caverns, and sloughs, are formed; the eye-lid frequently becomes hard and brown, or blackish, and sphacelates. Delirium and coma accompany these appearances. It affects various parts of the body.

170. II. *The Complications.* Dr. Heberden jusly remarks —"In hâc, ut in omni aliâ febre, oportet vigilare, et quicquid mali oriatur, idoneis remediis succurrere."* Indeed in every case of fatal erysipelas it is probable that there is either

* Commentarii, p. 148.

Inflammation, or Congestion, within the—

1. *Head,*
2. *Thorax, or*
3. *Abdomen.*

171. III. *The Morbid Anatomy.* I need scarcely repeat what I have already stated several times, that the morbid anatomy requires to be investigated anew in reference to each of the eruptive fevers; this remark applies to erysipelas, equally with scarlatina, variola, &c.

172. The four species of disease enumerated in the present chapter afford an admirable subject and ample scope for original inquiry in many points of view, but especially in reference to the pathology, the complications, and the morbid anatomy.

CHAPTER III.

THE DIAGNOSIS OF IRRITATION, EXHAUSTION, ETC.

173. The first two subjects which I now introduce to the notice of my readers, have been almost neglected by the profession. I have treated of them expressly before,* and it is now only necessary to detail their diagnosis.

174. Irritation, the first of these subjects, consists in the presence and effects of some cause of pain and suffering, or in the more immediate effects of such a cause, should it be removed. The irritation of a calculus in the ureter, or in the hepatic duct, is well known to occasion severe pain and a remarkable sympathetic affection of the stomach, viz. nausea and vomiting.† The introduction of a bougie into the urethra sometimes induces rigor and a complete febrile paroxysm, although it be immediately withdrawn. Uterine irritation is not less frequently or unequivocally the cause of extraordinary effects upon the system generally and upon various organs.

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* See the "Researches," &c. pp. 9—92; 201.

† These two examples of irritation will be noticed more fully hereafter. It is only necessary to state, in this place, that the former is denoted by local pain, sympathetic sickness and vomiting, and sometimes icterus; whilst to the pain and sickness, in the latter case, are added a state of urine charged with animal matter, with a strong smell, high color, and sometimes an admixture of blood. In either, a calculus, or calculi, may be expelled. Gentle percussion upon the part is, in these, as in many instances of disease, of the highest value in a diagnostic point of view.

175. But of all the sources of sympathetic morbid affections, irritation in the stomach and intestines is the most common, the most important. Indigestible substances taken, and fæculent matters too long retained, are the frequent causes of that combined affection of the head and of the stomach, termed sick-headache, and of other and more acute sympathetic morbid affections, less recognised by the profession.

176. Similar remarks may be made respecting the effects of exhaustion from the loss of blood. If the more immediate of these effects be well known, the more remote have been overlooked, or mistaken for other morbid affections. Yet to the physician the symptoms of reaction from loss of blood, so similar to those of some affections of the head, and of the heart, present subjects for his observation of the utmost moment in actual practice. The diagnosis of these cases is most important; the prognosis and the treatment alike depend upon it.

177. With these affections it will be highly useful to contrast those denominated delirium tremens and erethismus mercurialis.

ARRANGEMENT OF IRRITATION, EXHAUSTION, ETC.

I. Intestinal Irritation.

II. Exhaustion from loss of Blood.

I. *Immediate.*

II. *Remote.*

1. *Reaction.*

2. *Sinking.*

III. Delirium tremens.

IV. Erethismus mercurialis.

I. INTESTINAL IRRITATION.

178. I. *The History.* The most frequent cause of this affection is a disordered state of the contents of the colon; the next is some indigestible substance taken into the stomach. But as the mere presence of a calculus in the ureter is not

always sufficient alone to induce an attack of pain and vomiting, so a deranged condition of the intestinal contents will not, alone, induce an attack of the morbid affection which I am about to describe; in general some superadded cause, some shock sustained, or some effort made by the system, is necessary to rouse into activity the cause of irritation otherwise dormant. In the same manner, indigestible substances may frequently be taken, with impunity, when the health is unimpaired; but if the system be under the influence of shock, or effort, or of nervous or vascular excitement, or exhaustion, a cause of disorder which might have been inert in other circumstances, proves of frightful activity. One condition frequently involves *all* these causes: it is the *puerperal state*. Intestinal irritation is, therefore, most frequently a puerperal disease. It is also frequently brought into action by a fall, or other accident, by serious operations, &c.

179. II. *The Symptoms.* The effects of intestinal irritation generally begin in the manner of a sudden attack. This attack is usually ushered in by rigor, indeed by a more distinct and decided rigor than is observed in many cases of inflammation; the rigor is usually soon followed by much heat of surface; with the heat the patient experiences some affection of the head, chest, or abdomen, and, indeed, frequently of all; there are vertigo on raising the head, pain, and some morbid impression on the mind, panting in the breathing, fluttering about the heart, with general hurry, irritability, and restlessness; the tongue is white and loaded; the alvine evacuations are morbid,—dark-colored, fœtid, and scybalous,—or yellow like the yolk of egg,—or of the appearance of yeast; the urine is turbid and frequently deposits a copious sediment.

180. These affections are apt to occur in sudden attacks, and to recur in paroxysms,—perhaps varying their form,—and exciting great alarm in the patient and his friends, who usually despatch a hurrying message to the medical attendants.

181. III. *The Complications* consist of affections *resembling*,

1. *Arachnitis;*
2. *Pleuritis;*
3. *Carditis;*
4. *Peritonitis.*

182. 1. The affection of the head consists of the most acute pain, the greatest intolerance of light and sound, and the severest form of vertigo, wakefulness, and distress, and sometimes even delirium, and the pupils of the eyes are often extremely contracted.

183. 2. The affection of the chest is denoted by severe and acute local pain, which is apt to vary its situation, passing from one side to the other, or to the back, or occupying a situation higher up or lower down: this pain checks a deep inspiration, and even the ordinary breathing, to which it imparts a character of difficulty and anxiety.

184. 3. When the heart is the seat of this affection, there are violent and terrific attacks of palpitation, and the course of the carotids and even of the abdominal aorta, is sometimes the seat of violent pulsation or throbbing.

185. 4. When the abdomen is affected, there are acute pain, and great tenderness under pressure, in some part, or more or less generally diffused. The attack and situation of the pain are such, in some instances, that the case is with difficulty distinguished from gall-stones, though it more generally resembles peritonitis.*

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* It may be well in this note to state the diagnosis more distinctly.

1. The attack of intestinal irritation is, in general, more sudden than that of inflammation, which is usually formed somewhat more gradually. This circumstance must therefore be cautiously inquired into, and may assist the diagnosis.

2. I believe, too, that the seizure in the former case is attended by more distinct rigor, and afterwards by greater heat, than in the latter.

3. The case of irritation affects, in a marked degree, more organs at once, whilst that of inflammation is usually confined, at first at least, to one.

4. The state of the tongue and the condition of the alvine evacuations are far more marked by disorder, and the latter are far more offensive, in attacks from irritation than in cases of inflammation.

5. The affection of the head from irritation comes on suddenly, is formed all at once, and is frequently attended by great restlessness, suffering, and distress, and there is early syncope on taking blood: in arachnitis, the disease is usually formed

186. IV. *The Effects of Remedies.* In this place I must beg permission to draw the attention of my reader very particularly to that source of diagnosis afforded by the effects of remedies; and particularly to the diagnosis between the class of complications of Intestinal Irritation resembling inflammations from actual Inflammation. In the latter cases, thirty, forty, and even fifty ounces of blood may flow before the slightest deliquium is observed: in the former there is frequently the most perfect syncope on abstracting nine or ten ounces of blood!

187. A further diagnosis is afforded by the condition of the intestinal evacuations, as ascertained by the administration of copious warm-water enemata; &c.

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somewhat more gradually; the patient has been subject to pain of the head perhaps for some days or even longer; he complains less; or at least there is less urgent distress,—less distress of a general kind; the pain may be very severe, although it is more frequently rather obscure; the intolerance of light and sound is less urgent; the rigor, and subsequent heat, and the attack in general, are less marked; the patient is not so soon relieved by remedies, and the tongue and alvine evacuations are less morbid, and there is, especially, great tolerance of loss of blood. In the attack of affection of the head from irritation, the patient is relieved perhaps completely if the lancet be employed, but the attack soon recurs with equal or greater violence: in arachnitis, the relief is seldom so complete, the interval of ease so long, or the return so marked; the pain is diminished, perhaps, but gradually resumes its former violence, unless active measures be interposed.

6. When the chest is affected from irritation, the pain is severe and acute, and perhaps increased by a full inspiration; if the inspiration be repeated, however, a second and a third time, the increase of the pain is less and less; the situation of the pain varies; there is no cough, no crepitus on making a full expiration. In all these respects the case differs from inflammation. The remarks already made respecting the relief from remedies, the effect of blood-letting, the tendency to a sudden recurrence of the pain, &c. in cases of affection of the head, apply equally here.

7. I had long remarked that there might be both acute pain and tenderness under pressure, of the abdomen, without inflammation; this state of things is frequently the result of intestinal irritation. It is distinguished from inflammation by the general symptoms, the mode of attack, the effects of remedies. In inflammation the surface is usually cool, the head unaffected, the patient remarkably quiet: in the case of irritation, on the contrary, there is generally much heat after rigor, the head is much affected, and the patient is restless and generally distressed, the tongue loaded and perhaps swollen, the alvine evacuations extremely morbid, and great relief is obtained by the free operation of medicine. I may refer further to the Clinique Médicale of M. Andral, ed. 1, t. i, pp. 51, 54.

188. V. The *structural changes* induced by continued Intestinal Irritation are unknown; but it is probable that serous effusion is not unfrequently induced and ascribed to other causes.

II. EXHAUSTION.

189. *The History.* The effects of Exhaustion from loss of blood are readily traced to its cause when they are *immediate;* but the *remote* effects of Exhaustion are particularly apt, from their similarity to inflammatory diseases, and from the present relief conferred by the detraction of blood, to deceive the unwary. It is highly important, therefore, to bear this distinction in mind.

I. *The immediate Effects of Loss of Blood.*

190. I. *The Symptoms.* The most familiar of the effects of loss of blood is syncope. In ordinary syncope from loss of blood, the patient first experiences a degree of vertigo, to which loss of consciousness succeeds; the respiration is affected in proportion to the degree of insensibility, being suspended until the painful sensation produced rouses the patient to draw deep and repeated sighs, and then suspended as before; the beat of the heart and of the pulse is slow and weak; the face and general surface become pale, cool, and bedewed with perspiration; the stomach is apt to be affected with eructation or sickness. On recovery there is perhaps a momentary delirium, yawning, and a return of consciousness; irregular sighing breathing; and a gradual return of the pulse.

191. In cases of profuse hæmorrhagy the state of the patient varies: there is at one moment a greater or less degree of syncope, then a degree of recovery. During the syncope the countenance is extremely pallid, there is more or less insensibility, the respiratory movements of the thorax are at one period imperceptible and then there are irregular sighs, the pulse is slow, feeble, or not to be distinguished, the extremities are apt to be cold, and the stomach is frequently affected with sickness.

192. In cases of fatal hæmorrhagy there are no ameliorations. The symptoms gradually and progressively assume a more and more frightful aspect: the countenance does not improve, but becomes more and more pale and sunk; the consciousness sometimes remains until at last there is some delirium; but every thing denotes an impaired state of the energies of the brain; the breathing becomes stertorous and at length affected by terrible gasping; there may be no efforts to vomit; the pulse is extremely feeble or even imperceptible; the animal heat fails and the extremities become colder and colder in spite of every kind of external warmth; the voice may be strong, and there are constant restlessness and jactitation; at length the strength fails, and the patient sinks, gasps, and expires.

193. Besides syncope there are other immediate effects of loss of blood. These are,

1. *Convulsions;*
2. *Delirium;*
3. *Coma;*
4. *Sudden Dissolution.*

194. 1. Convulsion is, after syncope, the most familiar effect of loss of blood. It constitutes one species of puerperal convulsion, and should be accurately distinguished from other forms of this affection, arising from intestinal or uterine irritation, and an immediate disease of the head.

195. 2. Delirium occurs as an immediate, as mania occurs as a more remote, effect of loss of blood.

196. 3. We may be called to patients so perfectly comatose, immediately after blood-letting or hæmorrhage, that we may be in doubt for a time whether the case be not apoplexy. The history, the state of the countenance, of the pulse and of the extremities, and the other symptoms, will, after a little watching, make the case clear to us.

197. 4. Sudden death has occurred from misapplied blood-letting. For an account of the circumstances in which this is apt to take place, I must refer to the work already quoted more than once; viz. "Researches," &c. pp. 6, 23, &c.

II. *The more remote Effects of Loss of Blood.*

198. The more remote effects of loss of blood are induced by repeated detraction of blood or a continued hæmorrhagy, and consist in,

I.—*Excessive Reaction; sometimes with*
1. *Delirium; Mania; or*
2. *Coma; Amaurosis; or Deafness.*

II.—*The Sinking State.*

I. *Excessive Reaction.*

199. I. *The Symptoms.* Excessive reaction is formed gradually, and consists, at first, in forcible beating of the pulse, of the carotids, and of the heart, accompanied by a sense of throbbing in the head, of palpitation of the heart, and eventually perhaps of beating or throbbing in the scrobiculus cordis, and in the course of the aorta. This state of reaction is augmented occasionally by a turbulent dream, mental agitation, or bodily exertion. At other times it is modified by a temporary faintness or syncope. There is also sometimes irregularity of the beat of the heart and of the pulse. The respiration is apt to be frequent and hurried, and attended with alternate panting and sighing; the movement of expiration is sometimes obviously and singularly blended with a movement communicated by the beat of the heart; the patient requires the smelling-bottle, the fan, and the fresh air. The skin is sometimes hot; and there are frequently general hurry and restlessness. In this state of exhaustion, sudden dissolution has sometimes been the immediate consequence of muscular effort on the part of the patient, or of his being too suddenly raised from the recumbent into the erect position.

200. II. In the more exquisite cases of excessive reaction the symptoms are still more strongly marked, and demand a fuller description. They consist in affections *resembling*,

I. *Arachnitis;*
II. *Carditis.*

201. I. The beating of the temples is at length accompanied by a throbbing pain of the head, and the energies and sensibilities of the brain are morbidly augmented; sometimes there is intolerance of light, but still more frequently intolerance of noise and of disturbance of any kind, requiring stillness to be strictly enjoined, the knockers to be tied, and straw to be strewed along the pavement; the sleep is agitated and disturbed by fearful dreams, and the patient is liable to awake or to be awoke in a state of great hurry of mind, sometimes almost approaching to delirium; sometimes there is slight delirium, and occasionally even continued delirium; more frequently there are great noises in the head as of singing, of crackers, of a storm, or of a cataract; in some instances there are flashes of light; sometimes there is a sense of great pressure or tightness in one part or round the head, as if the skull were pressed by an iron nail or bound by an iron hoop.

202. II. The action of the heart and arteries is morbidly increased, and there are great palpitation, distinct "bruit de scie," under the ear or the stethoscope, and visible throbbings of the carotids, and sometimes even of the abdominal aorta, augmented to a still greater degree, by every cause of hurry of the mind or exertion of the body, by sudden noises or hurried dreams or wakings; the patient is often greatly alarmed and impressed with the feeling of approaching dissolution; the state of palpitation and throbbing are apt to be changed, at different times, to a feeling of syncope; the effect of sleep is in some instances very extraordinary—sometimes palpitation, at other times a degree of syncope, or an overwhelming feeling of dissolution; the pulse varies from 100 to 120 or 130, and is attended with a forcible jerk or bounding of the artery.

203. III. *The Effects of Remedies.* The symptoms of exhaustion with reaction have, I am persuaded, frequently been mistaken for those of inflammation or other disease of the head or of the heart. Under this impression recourse has frequently been had to the further detraction of blood by the lancet. And the effect of this practice is such as greatly to

impose upon the inexperienced,—for all the symptoms are perhaps greatly relieved by the induction of a state of syncope.

204. It seems only necessary to refer to the occurrence of *delirium, mania, coma,* and *amaurosis,* as effects of exhaustion from loss of blood. They are distinguished by being traced to these *causes.* The first frequently occurs, either as transient delirium or as more permanent mania, as a puerperal disease. Coma, amaurosis, and deafness, have occurred from similar causes and under similar circumstances. They must be cautiously distinguished from similar symptoms resulting from cerebral inflammation or congestion.

II. *The Sinking State.*

205. This term is adopted not to express a state of negative weakness merely, which may continue long and issue in eventual recovery, but to denote a state of positive and progressive failure of the vital powers, attended by its peculiar effects, and by a set of phenomena very different from those of exhaustion with reaction.

206. I. *The Symptoms.* If in reaction the energies of the system are augmented, in sinking the functions of the brain, the lungs, and the heart are singularly impaired. The sensibilities of the brain subside, and the patient is no longer affected by noises as before; there is, on the contrary, a tendency to dozing, and gradually some of those effects on the muscular system which denote a diminished sensibility of the brain supervene, as snoring, stertor, blowing up of the cheeks in breathing, &c.; instead of the hurry and alarm on awaking as observed in the case of excessive reaction, the patient in the state of sinking, requires a moment to recollect himself and recover his consciousness, is perhaps affected with slight delirium, and he is apt to forget the circumstances of his situation and, inattentive to the objects around him, to fall again into a state of dozing. Not less remarkable is the effect of the state of exhaustion with sinking on the function of the lungs; in-

deed the very first indication of this state is, I believe, to be found in the supervention of a crepitus in the respiration, only to be heard at first on the most attentive listening, or by means of the stethoscope; this crepitus gradually becomes more audible and passes into slight ruttling, heard in the situation of the bronchia and trachea; there is also a degree of labor or oppression, sighing, hurry, blowing, in the breathing, inducing acuteness in the nostrils, which are dilated below and drawn in above the lobes at each inspiration; in some cases there is besides, a peculiar catching, laryngal cough, which is especially apt to come on during sleep, and awakes or imperfectly awakes the patient. The heart has, at the same time, lost its violent beat and palpitation, and the pulse and arteries their bounding or throbbing. The stomach and bowels become disordered and flatulent, and tympanitic, and the command over the sphincters is impaired. The last stage of sinking is denoted by a pale and sunk countenance, inquietude, jactitation, delirium, and coldness of the extremities.

206. II. *The Morbid Anatomy.* Extreme exhaustion from loss of blood, leads to

1. *Effusion of Serum or of Blood within the Head.*
2. *Œdema of the Lungs, accumulated bronchial Secretion, and serous Effusion from the Pleura.*
3. *Serous Effusion from the Peritonæum.*
4. *General Œdema or Anasarca.*
5. *Tympanitic Distention of the Bowels.*

207. I have been as full, yet as brief, as possible in this description of Intestinal Irritation and Exhaustion. I was anxious that subjects so little understood should be fairly brought before the student; yet I was equally anxious not to devote an undue degree of space to them, however important.

III. DELIRIUM TREMENS.*

208. I. *The History.* The *cause* of delirium tremens consists in the habit of taking alcoholic liquors; the immediate attack is frequently induced by some event which has withdrawn the wonted stimulus. The disease is very apt to recur after a first attack. The first symptom is frequently tremor merely, which is afterwards succeeded by the delirium.

209. II. *The Symptoms.* The delirium tremens is strongly characterized by the state of expression of the countenance. There is a wild stare; the patient raises himself up to attend to what is said to him, but it is soon perceived that the mind wavers, is confused, or intent on some particular purpose, as in endeavors to seize or avoid particular objects or persons. The patient then talks incoherently. There is at first little muscular debility, but there is a state of tremulous motion of the limbs. The patient frequently changes his posture, sits up, and perhaps wishes to get out of bed. The state of the surface is little changed in the commencement, but, at a later period, a copious perspiration occasionally occurs, sometimes with coldness of the forehead, face, and extremities. There are utter sleeplessness and delirium, especially during the night; but the patient may generally be made to collect himself for a time. The pulse is rather frequent, but often nearly natural. The tongue is white and usually moist. There is anorexia. The bowels are regular. In an advanced stage, the delirium may pass into coma, the tremor assume the form of subsultus tendinum, and the evacuations become involuntary.

210. III. *The Effects of Remedies.* There is early syncope from blood-letting; and this measure is often followed by sinking of the powers of life.

211. IV. *The Morbid Anatomy.* The patient may sink in the first attack without any perceptible organic change. When

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* An affection very similar to the delirium tremens has been described by M. Dupuytren as occurring after accidents or operations, under the designation *Delirium traumaticum.*

there have been more attacks than one, I have found effusion into the ventricles of the brain, and under the arachnoid.

IV. ERETHISMUS MERCURIALIS.

212. This affection was first discriminated by the late Mr. John Pearson.*

213. Since Mr. Pearson wrote, we have a case of deep interest in the communication of the late Dr. Bateman, published in the Medico-Chirurgical Transactions, vol. ix, art. xv.

214. I. *The History.* The erethismus mercurialis may come on at an early period of the use of mercurial remedies. In Dr. Bateman, the first symptom occurred on the ninth day of mercurial inunction, with languor, fever, and on the next morning, with violent and irregular beating of the heart. The inunctions were continued until the thirteenth day ! (§ 13.)

215. II. *The Symptoms.* Mr. Pearson observes—"The gradual approach of this diseased state, is commonly indicated by paleness of the countenance, a state of general inquietude,

* See Observations on the Cure of Lues Venera, Ed. 2d. chap. xii. Mr. Pearson observes—"In the course of two or three years after my appointment to the care of the Lock Hospital, I observed, that in almost every year, one and sometimes two instances of sudden death occurred among the patients admitted into that institution; that these accidents could not be traced to any evident cause; and that the subjects were commonly men who had nearly, and sometimes entirely, completed their mercurial course. I consulted Mr. Bromfeild and Mr. Williams upon this interesting subject, but they acknowledged themselves unable to communicate any satisfactory information: they had carefully examined the bodies of many who had died thus unexpectedly, without being able to discover any morbid appearances; and they confessed that they were equally ignorant of the cause, the mode of prevention, or the method of treating, that state of the system which immediately preceded the fatal termination.

"As the object of my inquiry was of considerable importance, I gave a constant and minute attention to the operation of mercury on the constitution in general, as well as to its effects on the disease for which it was administered; and, after some time had elapsed, I ascertained, that these sinister events are to be ascribed to mercury acting as a poison on the system, quite unconnected with its agency as a remedy; and that its deleterious qualities were neither in proportion to the inflammation of the mouth, nor to the actual quantity of the mineral absorbed into the body."

and frequent sighing:—The respiration becomes more frequent, sometimes accompanied with a sense of constriction across the thorax; the pulse is small, frequent, and often intermitting, and there is a sense of fluttering about the præcordia. In this early stage, the farther progress of the mercurial erethismus may be frequently prevented, by giving the camphire mixture with large doses of volatile alkali, at the same time suspending the use of mercury." And further—"the erethismus is characterized by great depression of strength, a sense of anxiety about the præcordia, irregular action of the heart, frequent sighing, trembling, partial or universal, a small, quick, and sometimes an intermitting pulse, occasional vomiting, a pale contracted countenance, a sense of coldness; but the tongue is seldom furred, nor are the vital or natural functions much disordered. When these, or the greater part of these symptoms are present, a sudden and violent exertion of the animal power will sometimes prove fatal; for instance, walking hastily across the ward; rising up suddenly in the bed to take food or drink; or slightly struggling with some of their fellow patients, are among the circumstances which have commonly preceded the sudden death of those afflicted with the mercurial erethismus."*

216. In Dr. Bateman's case it was remarked "that the action

* "To prevent the dangerous consequences of this diseased state, the patient ought to discontinue the use of mercury; nor is this rule to be deviated from, whatever may be the stage, or extent, or violence of the venereal symptoms. The impending destruction of the patient, forms an argument paramount to all others; it may not be indeed superfluous to add, that a perseverance in the mercurial course, under these circumstances, will seldom restrain the progress of the disease, or be productive of any advantage. The patient must be expressly directed to expose himself freely to a dry and cool air, in such a manner as shall be attended with the least fatigue. It will not be sufficient to sit in a room with the windows open; he must be taken into a garden, or a field, and live as much as possible in the open air, until the forementioned symptoms be considerably abated. The good effects of this mode of treatment, conjoined with a generous course of diet, will be soon manifested; and I have frequently seen patients so far recovered in the space of from ten to fourteen days that they could safely resume the use of mercury; and, what may appear remarkable, they can very often employ that specific efficiently afterwards, without suffering any inconvenience."

of the heart and arteries, which was extremely feeble as well as irregular while awake, was so much more enfeebled during sleep, as to be in fact almost suspended, and thus to occasion alarming faintings and sinkings; so that it became necessary, notwithstanding the extreme drowsiness which had succeeded the long-continued watchfulness, to interrupt the sleep at the expiration of two minutes, by which time, or even sooner, the sinking of the pulse and countenance indicated the approaching languor." *

217. There is a case shortly detailed in Sir C. Bell's admirable work on the Nerves,† which is surely one of Erethismus mercurialis. The patient's "medical friends have sat by him and watched him, and have found that when sleep is overpowering him, the breathing becomes slower and weaker, the heart and pulse also fall low, and cease to beat as sleep comes on; and in a short time he awakes in tremor." The patient had taken "a great deal of calomel."

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* The reader cannot fail to have observed a degree of similarity between the erethismus mercurialis and the state of exhaustion from loss of blood. The condition of the heart's action, the peculiar effect of sleep, and the proneness to a sudden fatal termination from muscular effort, are the same in both affections.

The state of things in extreme chlorosis is also not dissimilar, as I have had occasion to notice elsewhere. See "Researches," p. 115, and "Commentaries on some Diseases of Females," Ed. ii, p. 82.

Similar circumstances are observed also in some diseases of the heart itself.

† 4to Ed. 1830, p. cxlviii.

CHAPTER IV.

THE DIAGNOSIS OF DYSPEPSIA, CHLOROSIS, ETC.

218. THERE is a class of disorders, each of which consists of a more general morbid affection, usually combined with some topical symptom or symptoms. The general affection is complex and various; the complications are multiform and changeable, and, by their incidental predominance, frequently imitate other diseases widely different in their nature.

219. The complications of these morbid affections are apt to be mistaken and mistreated for different Inflammatory and other local diseases, and appear to me to constitute a Class of morbid affections scarcely less frequent or less important, and requiring to be distinguished with the utmost care.

220. The objects of this Chapter is to establish this Class of general and local morbid affections more distinctly and extensively than before,—to collect and embody the system of facts which belong to this part of pathology,—to present accurate descriptions of the different forms, and to trace the diagnosis of the numerous complications of these disorders.

221. The first part of the chain of constitutional causes and effects in all those disorders is a loaded state of the large intestine. From this loaded state of the bowels, their functions, and those of all the chylopoetic viscera, most probably become deranged. The alvine contents become disordered merely by delay; and their presence induces, in its turn, a disordered state of the functions,—or actions,—of all the organs contributory to digestion, and at length of other organs more remotely situated in the animal frame.

222. The functions of the parts within the mouth become obviously disordered. The secretions become morbid; the tongue becomes loaded and swollen; the gums red and tumid; the breath tainted; and the saliva sometimes profuse and offensive. The complexion and the skin become morbid, and there are the appearances observed in the acute dyspepsia or in chlorosis, and frequently œdema. This condition of the complexion and skin varies with the state of the original disorder, and with that of the tongue and internal mouth, of which it affords indeed an index. With the state of the mouth and skin, that of the secretions and other functions of the whole course of the alimentary canal and the contributory digestive organs,—the liver, the pancreas, &c. may be presumed to be all morbidly affected. Digestion is variously deranged; the contents of the bowels become unnatural; and thus reciprocally.

223. As co-existent or subsequent links of this chain of sympathies, the functions of the brain, heart, respiration, stomach, intestines, uterus, bladder, &c. become variously affected. The muscular system and the senses also suffer in different instances. And nutrition, absorption, and secretion are impeded or impaired.

224. The disorders comprised in this Class may be arranged in the following order:

ARRANGEMENT OF DYSPEPSIA, CHLOROSIS, ETC.

I. Dyspepsia.

1. *The Acute*,
2. *The Protracted*,
3. *The Chronic, Forms*.

II. Chlorosis.

1. *Incipient*,
2. *Confirmed*,
3. *Inveterate*.

III. Hysteria.

1. *Mild,*
2. *Severe,*
3. *Inveterate.*

I. DYSPEPSIA.

225. This disorder occurs under three forms: the *acute,* the *protracted,* and the *chronic.*

I. *The Acute Form.**

226. I. *The History.* This affection is the usual result of sedentary habits. It affects literary persons, and is particularly apt to be induced during a residence at college; it is also frequently seen in females and persons of a delicate mode of life; it affects tailors and mantua-makers, and the youthful inhabitants of schools. It comes on insidiously, but often first attracts attention by the suddenness and severity of some one of its complications.

227. II. *The Symptoms.* The Acute Dyspepsia is early and principally characterized and distinguished by the concurrence of the following symptoms,—namely, weakness, tremor, headache, vertigo, fluttering, faintishness, tendency to perspiration, susceptibility to hurry and agitation, weariness, and loss of flesh. The countenance is rather pale and thin; the lips are pale, and, with the chin, frequently tremulous, especially on speaking; the surface of the face is generally affected with an appearance of oily, clammy, and swarthy perspiration, especially near the nose. The tongue is almost invariably loaded:—sometimes only slightly, whilst its edges are clean and red;—in severe cases, a load has formed over the tongue, and has, almost at once, peeled off, leaving the surface morbidly red, smooth, and tender;—at other times it is more loaded,

* A careful examination of some of the older writers has led me to think that the Acute Dyspepsia is described by them under the designation Scorbutus. See Willis de Cerebro, &c. Tract. de Scorbuto; and an Essay by the author in the Edinb. Med. and Surg. Journ. vol. xvi, p. 204.

swollen, and œdematous, formed into deep sulci or plaits, and marked by pressure against the contiguous teeth,—the inside of the cheeks being also impressed in the same manner; the papillæ of the tongue are numerous and enlarged; the gums are red and swollen, and occasionally bleed; the teeth and the mouth are in general foul, and the breath loaded and fœtid; in a fourth instance, the tongue may, however, be clean, but lobulated, whilst the internal mouth and breath are little affected. There is a tendency to perspiration, on slight exertion, or any surprise, and, sometimes, in the night or early in the morning; the skin is, in general, cool, rather moist, and clammy; in some protracted cases, it has become dry and harsh. The hands and feet are apt to be very cold, and the nails occasionally assume a lilac hue. The patient is usually affected with great tremor, observed sometimes in a quivering of the lip, or dimpling of the chin, but more usually on holding out the hand, or in carrying a cup of tea, for instance, to the mouth, on attempting to stand erect or walk, or on being fatigued or hurried. There is an early and daily loss of flesh. The patient experiences headache and vertigo, and he is nervous, and easily hurried and agitated. There is sometimes heaviness for sleep; sometimes great wakefulness and restlessness; sometimes incubus, rarely delirium; sometimes loss of memory and absence of mind. There is almost universally a peculiar sense of fluttering about the heart and pit of the stomach. And there is frequently an acute pain in some part of the course of the colon. The bowels are at first constipated; afterwards constipation and diarrhœa alternate, and sometimes the latter symptom becomes nearly permanent: the motions, during the constipation, are small, during the diarrhœa, scanty, extremely fœtid, dark colored, often accompanied by blood, and frequently attended by tenesmus.*

228. III. *The Complications.* Besides the symptoms just enumerated, there are others which prevail more or less in

* I have, in two localities, witnessed the most marked form of the Acute Dyspepsia within the precincts of convents. The seclusion and inactivity of these establishments appear to be the causes which slowly induce this disease.

almost every case; but they are, on the whole, less constant and more diversified; and of these one sometimes predominates so much over the rest, as to engross the attention of the patient, and sometimes of the practitioner, too exclusively. The secondary affection is then considered as idiopathic, and the symptom is apt to be treated as the disease. It is therefore of the utmost importance to present the reader with the following distinct enumeration of these symptoms:—

1. *Headache; Vertigo; Stupor; &c.*
2. *One Form of Epilepsy.*
3. *Paroxysms of Oppressive Dyspnœa; True Asthma.*
4. *Palpitation of the Heart; Fluttering; Faintishness; Irregularity and Frequency of the Pulse; One Form of Angina Pectoris.*
5. *Frequent and Violent Hiccough; Vomiting.*
6. *Some Convulsive and Spasmodic Affections.*
7. *Pain in the Epigastric, or One or Both of the Hypochondriac, or Chondiliac Regions.*
8. *Constipation; Diarrhœa; Tenesmus.*
9. *Hæmatemesis; Melæna.*
10. *Icterus.*
11. *Severe Pains of some of the Limbs.*
12. *Sudden Tumefaction of the Integuments, especially of the Face.**

II. *The Protracted Form.*

229. I. *The Symptoms.* In the more protracted form of

* Even where one of these symptoms is particularly marked and severe, several concur, and are experienced in a mitigated form, affording a characteristic feature of this disorder and a principal source of discrimination; for whilst most **local** diseases are denoted by being simple, and definite, this affection is distinguished by its multiplicity, and by apparently conjoining many or all disorders in one,—Ουχ 'ΕΝ τι των κακων φαινεται, αλλ' εστιν ὁτε ΠΟΛΛΑ, η και ΠΑΝΤΑ.

This form of Dyspepsia is also characterized, although less so perhaps than the more chronic and continued forms of this affection, by being variable,—better and worse,—with this or that prevailing feeling or symptom,—even during a general recovery;—changes chiefly induced by bodily fatigue, mental agitation, errors in diet, or constipation.

this affection, the debility, tremor, loss of flesh, and tendency to faintishness and perspiration are less observed, although perhaps not altogether absent. The countenance is rather sallow, and its surface is more or less affected as in the severer form described above. The tongue and the internal mouth are often affected in the severer degree described. The patient is incapable of pursuing any laborious employment. He is prone to perspire from slight exertion or agitation. He perhaps experiences some loss of flesh. He is low-spirited and listless. The appetite is sometimes impaired, but sometimes craving. And he suffers from the symptoms described, and from the complications enumerated, only in a milder and more protracted form than the subject of the severer cases of Acute Dyspepsia.

230. II. *The Complications.* Besides the symptoms enumerated, the less severe but more continued form of this disease is sometimes attended with one of the following affections:—

1. *Furunculi; Paronychia; Hordeola.*
2. *Erysipelas of the Nose; Erethema Nodosum; Urticaria Chronica; Lichen.*
3. *Purpura; Hæmorrhages.*
4. *Ulcerations and Pustules of the Conjunctiva.*
5. *Decay of the Teeth; a Morbid State of the Gums; a peculiar Ulcer of the Tongue; Chronic Sore Throat.*
6. *Some Affections resembling Syphilis.**

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* *Note on a Cachetical Form of Dyspepsia.*

This morbid affection has appeared to degenerate in some cases into a state of *Cachexia*, and has been complicated not only with the diseases enumerated but with other morbid affections,—especially of the skin, the mouth and throat, the periosteum, the absorbent glands, &c.

In one case, these were conjoined, or in succession—1. swarthiness of complexion; 2. feverishness, with parched throat and mouth, and heat of the forehead and legs; 3. tendency to perspiration; 4. quivering of the chin and lips in speaking, similar to that observed before shedding tears; 5. tremor; 6. fluttering; 7. loss of flesh; 8. discharge of bloody mucus from the nostrils, with ulceration; 9. ulceration of the throat, 10. Icterus; 11. discharge of much blood and mucus

III. *The Chronic Form.*

231. I. *The History.* This form of Dyspepsia, the common Dyspepsia of authors, is intimately allied to the less severe and more continued forms described, from which it may originate, or into which it may pass. But it very frequently begins, and pursues a longer or shorter course, with the character about to be given.

232. II. *The Symptoms.* It is denoted, in general, by fits of despondency and gloom, of invincible disinclination for exertion, of pain about the head, sinking at the præcordia, and heat or fulness of the stomach. The countenance is liable to be rather sallow, and occasionally rather pallid; and there is often a great expression of despondency and lowness. The tongue is whitish and clammy, furred, and often affected with minute white points. There are, at different times, and in different instances, heartburn, a sense of heat or burning, acidity, load, distention, inflation, nausea; sometimes eructation of an acid, at other times, of a nidorous taste, and sometimes the rejection of fluid, or of food. The bowels are often constipated, or there are unsatisfactory evacuations, and the patient feels a sense of load about the rectum; sometimes there is considerable pain in the bowels. The appetite is in some cases moderate, in others much impaired, and, with the digestion, various at different periods and in different instances. There are many uneasy feelings in different parts of the body, which vary exceedingly, but always engross the patient's attention in a forcible manner.

II. CHLOROSIS.

233. *The History.* Chlorosis occurs principally in female youth; but frequently in married women, both young and old;

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from the bowels, preceded and attended by pain of the abdomen, with tenesmus and forcing; 12. the stools, otherwise, light-colored; 13. some anasarca; 14. boils; 15. painful ulcers on the legs.

and occasionally in the young and sedentary of the male sex, and even in men of adult age, from the influence of sedentary habits and mental anxiety. The most frequent cause is sedentariness. This affection is, therefore, usually observed in schools, in females of a delicate mode of life, or of a sedentary occupation or habit. Parturition; too long lactation; frequent hæmorrhagies; protracted or long-continued habits of menorrhagia,—and of leucorrhœa; anxiety; fatigue; and loss of rest, have appeared to induce the Chlorosis of persons more advanced in years.

234. Chlorosis occurs under three forms—the Incipient, the Confirmed, and the Inveterate.

I. *The Incipient Form.*

235. *The Symptoms.* The incipient form of Chlorosis is denoted by paleness of the complexion, an exanguious state of the prolabia, and a slight appearance of tumidity of the countenance, and puffiness of the eye-lids, especially the upper one. There is sometimes a tinge of green, or yellow, or of lead color, and frequently darkness of the eye-lids. There are great paleness of the general surface, hands, fingers, and nails; an opaque, white, tumid, and flabby state of the skin; and a tendency to œdema of the calves and ankles. And there is a certain loss of flesh. The tongue is white, and loaded; it is swollen, marked by pressure against the teeth, or variously formed into creases or folds; its papillæ are very numerous and much enlarged. The gums and the inside of the cheeks become tumid, and the latter as well as the former are sometimes impressed by the teeth. The breath is tainted. The patient is generally languid, listless, sedentary, indisposed for exertion, easily overcome by exercise, nervous, and low-spirited, drowsy, dizzy, faintish, or breathless. There is generally severe headache or vertigo; the memory and power of attention are apt to be impaired; and there is sometimes heaviness for sleep. There is, in different instances, pain of one or both sides about the false ribs, or in the hypochondriac or chondiliac

regions. Sometimes there is cough, difficulty in breathing, palpitation or irregular action of the heart, or imperfect syncope, and almost universally a sense of fluttering about the præcordia. The appetite is generally impaired. There is frequently a morbid appetite for acids, or for magnesia. The bowels are constipated—a state which sometimes leads to diarrhœa. The fæces are dark-colored, fœtid, and scanty. The urine is frequently loaded. The catamenia become irregular, are preceded and attended by much pain of the back and region of the uterus, and sometimes, but not always, become slowly defective in quantity, and pale in color.

II. *The Confirmed Form.*

236. *The Symptoms.* In the confirmed stage of this affection the state of the complexion and general surface is still more marked. The countenance is still more pallid, the prolabia and the gums exanguious, or the prolabia, especially the upper one, have a slight lilac hue, and the integuments are tumid. The skin is smooth, but becomes preternaturally dry. The integuments are puffy, opaque, and pale, or yellowish, and there is a tendency to œdema of the feet. There is frequently scarcely any further loss of flesh. Slight exfoliation of the nails. The tongue becomes clean and smooth; but it is pale, with a slight but peculiar appearance of transparency, and of a pale lilac hue; and it remains a little swollen and indented. The patient is affected with languor, lassitude, and even serious weakness, being at once reluctant and unable to undergo fatigue. There are often attacks of severe pain of the head, or of equally severe pain of the side; and repeated bleeding, leeches, and blisters, are usually employed, affording a temporary respite from these complaints. There are also, sometimes, fits of dyspnœa, of palpitation of the heart, or of fainting, with beating of the carotids. The pulse is rather frequent, often about 100, and easily accelerated and rendered irregular by mental emotion. The appetite is sometimes impaired, occasionally greater than natural, and very frequently depraved, inducing a longing or constant desire for some indigestible substance, as

acids or pickles, magnesia, chalk, cinders,* and coffee grounds, tea leaves, flour, grits, wheat, &c. The bowels are slow and constipated—a state which sometimes alternates with diarrhœa, and induces melæna; the stools are dark, fœtid, and scanty. The catamenia are attended with pain, and become paler, and less in quantity, and often cease altogether.

III. *The Inveterate Form.*

237. I. *The Symptoms.* In the inveterate form of Chlorosis all the symptoms assume an aggravated character. There is a very slow but progressive loss of flesh. The languor becomes a state of permanent debility. The œdema increases and takes on the aggravated form of anasarca. The pulse becomes frequent. There are less of the appearances of mere disorder, and more of the character of disease. Or those local affections which existed in a less continued manner before, now become either permanent, or are induced by the slightest causes, and the patient can scarcely bear the most ordinary occurrences of domestic life, and perhaps remains always in bed. Sometimes there is an almost permanent pain of the head, perhaps with intolerance of light or noise. Sometimes there is pain of the chest, with tenderness, difficulty in breathing, and cough. Frequently there are pain and tenderness of the abdomen, with sickness and constipation, or with diarrhœa. Different symptoms reign in different instances,—as some hysteric or spasmodic affection: a state of locked jaw, closed hand, contracted foot, or twisted limbs; palpitation of the heart; hurried or suspended respiration; long fits of coughing; hiccough; retention of urine.†

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* In the West Indies a similar disease prevails amongst the Negroes, who are then termed Dirt-eaters.

† *The Varieties.* Besides the forms of Chlorosis which have been described, there are some varieties of deranged complexion, which require to be distinctly noticed.

1. Sometimes there is *less pallor* of the countenance and prolabia, *but a ring of tumid darkness round the eye*, and perhaps a tumid state of the upper lip. 2. Sometimes the *complexion* is of a more yellow or *icterode hue*. 3. Sometimes the complexion is of a peculiar *lead-color*. 4. There is sometimes a peculiar state of *cold-*

238. II. *The Complications.* Such are the usual symptoms of the different stages of Chlorosis. But, as in acute dyspepsia, some of these symptoms are liable to be much aggravated, and to assume the form of serious local disease. The following list of these complications possesses therefore great interest:—

1. *Pain of the Head;*
2. *Cough and Dyspnœa;*
3. *Palpitation of the Heart;*
4. *Pain and Tenderness of the Side;*
5. *Pain and Tenderness of the Abdomen;*
6. *Constipation;*
7. *Diarrhœa;*
8. *Melæna;*
9. *Menorrhagia;*
10. *Tendency to Hæmorrhagy;*
11. *Purpura;*
12. *Leucorrhœa;*
13. *Hysteric Affections;*
14. *Œdema; Anasarca; Erythema Nodosum.*

239. III. *The Pathology.* There is occasionally a remarkable state apparently of the capillary system, giving rise to a hæmorrhagic tendency,—to epistaxis, melæna, hæmatemesis, menorrhagia, and even purpura. Still more generally, the *blood* discharged from the nose, or taken from the arm, and the *catamenia*, become almost aqueous and colorless; so that this affection presents an instance in which the vital fluid undergoes considerable change. I have seen the blood scarcely

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ness, cold moisture, and *lividity of the hands and fingers,* and a lilac hue of the nails, the tips of which often become white and opaque. 5. The state of Chlorosis consequent on hæmorrhagy also deserves to be distinctly noticed; there are paleness and slight yellowness of the complexion, exanguious prolabia, a greater degree of loss of flesh, and great fluttering and nervousness. There are also more chronic forms of this affection, in which there is a continued though variable state of *sallowness,* of *yellowness* or *icterode hue,* of *darkness,* or of a *wan, squalid,* or *sordid paleness of complexion;* or a *ring of darkness surrounding the eyes,* and extending a little, perhaps, towards the temples and cheeks, and sometimes encircling the mouth, without tumidity, without pallidness of the prolabia, and without much tendency to œdema

tinge the sheets, and I have seen it resolve itself almost entirely into serum with scarcely any crassamentum.

III. HYSTERIA.

240. Hysteria generally occurs in cases of the Acute Dyspepsia, or of Chlorosis. But it is occasionally induced by severe mental emotions, as excessive joy or grief; and a less curable form of the affection has been occasioned by surprise, but especially by fright. It is almost peculiar to the female sex.

241. This affection is generally denoted by combining some considerable emotion of the mind, denoted by sighing, sobbing, tears, or laughter, with a sense and expression of suffocation, and with some urgent affection of the head, heart, respiration, stomach, or muscular system.

242. Hysteria occurs in three forms: the Mild, the Severe, and the Inveterate.

I. *The Mild Form.*

243. *The Symptoms.* The mild form of Hysteria subsists as a tendency to alternate high and low spirits, to fits of laughter, to frequent deep sighing, and to tears. A fit of laughter, or of crying, sometimes takes on an aggravated character; the laughing, or the sobbing, becomes immoderate, convulsive, and involuntary, and there is frequently a peculiar spasmodic chucking in the throat. The countenance changes, being alternately flushed, and pale, and denoting great anxiety. There is frequently an urgent difficulty in breathing, with much rapid heaving of the chest. Sometimes a dry, spasmodic, and violent fit of coughing occurs. There is generally a sense, and appearance, and an urgent fear of impending suffocation. In different instances there is palpitation, hiccough, retching, or borborygmus. The patient is despondent, and exaggerates all her sufferings.

II. *The Severe Form.*

244. *The Symptoms.* The severe form of Hysteria consists in a various attack, catenation, or combination, of the following symptoms:—The commencement, course, or termination, of this, and indeed of every, form of Hysteria, is generally marked, and the case distinguished, by the signs of some inordinate mental emotion,—joy, grief, or other affection,—which constitute the most characteristic symptoms of this disorder, and have appeared to be literally *hysterical*. The attack is frequently ushered in by an unusual appearance of the countenance,—a rapid change of color, rolling of the eyes, distortion or spasmodic affection of the face. The extremities are apt to become very cold. A state of general or partial, of violent or of continued, convulsion, or of fixed spasmodic contraction, takes place, and displays every possible variety in mode and form. The severe form of Hysteria sometimes consists chiefly in a severe, general or partial pain and throbbing of the head. Occasionally this pain is confined to one particular spot, and is so acute as to have obtained the appellation of clavus hystericus. Sometimes there is intolerance of light and noise. Sometimes a state of stupor; sometimes delirium. The respiration is frequently much affected;—an oppressive and suffocative dyspnœa takes place; or the breathing is rapid, anxious, and irregular; or variously attended with sobbing, sighing, much rapid heaving of the chest, and sometimes with a spasmodic action of the diaphragm inducing a peculiar elevation of the abdomen, or an equally peculiar succussory movement of the trunk in general; sometimes the respiration appears to be suspended altogether for some time, the pulse continuing to beat as before. A crowing noise, or screaming, is apt to occur in this affection. There is occasionally, hoarseness, or even an entire loss of the voice, continued for some time. There is sometimes a painful, violent, dry, hoarse cough, continued, or recurrent in paroxysms. There is occasionally acute pain of the chest or abdomen. Palpitation of the heart and syncope are usual affections in the Hysteria. The pulse

is otherwise little affected. There is frequently an urgent sense of suffocation, accompanied with the feeling of a ball ascending into the throat: this symptom is so peculiar as to have obtained the denomination of globus hystericus, and is considered as diagnostic of this affection. Hiccough, and violent singultus; retching and vomiting; the sense of a ball rolling within the abdomen; borborygmus; a peculiar, great and sudden tumidity of the abdomen, apparently from flatus; constipation, &c. are usual symptoms in Hysteria, and sometimes occur in paroxysms, and sometimes assume a more continued form. There is frequently difficulty or retention of urine, succeeded by a very copious flow of limpid urine.

III. *The Inveterate Form.*

245. *The Symptoms.* The Inveterate Form of Hysteria—id enim vitium quibusdam feminis crebro revertens perpetuum evadit,—consists sometimes in an almost perpetual agitation of some part of the body, the limbs, the respiration, the throat, or the stomach;—and sometimes in a state of continued contraction of the hand or foot, or of some other part. In different instances too, there is a continued state of nervousness or agitation from the slightest noise or other cause,—of paralytic, epileptic, or spasmodic disease,—or of imbecility of the mind.*

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* The attention has, I think, been too exclusively directed to the paroxysm of *convulsion* in this affection. Some of the *other* varieties in the attack of the Hysteria, are almost equally frequent. This affection is characterized, indeed, by affecting in the same, or in different instances, singly or conjointly, all the several systems which constitute the human frame:—the organs of animal and of organic life;—the different sets of muscles, voluntary, involuntary, mixed, and sphincter;—the faculties of the mind, and the emotions of the heart;—the functions of the head, the heart, the stomach, &c. It is in thus viewing Hysteria, that the diagnosis is often formed between its different and very various attacks, and other affections having a different origin, but of which it is the *imitator*,—for, as Sydenham observes—"nullos fere non *æmulatur* ex iis affectibus quibus atteruntur miseri mortales."

Heberden treats at length of the varied forms of Hysteria, throughout his classical Commentaries.

Mr. Brodie has recently described a hysteric affection of the knee.

246. *The Varieties* of Hysteria are more numerous even than those of the other forms of disorder treated of in this chapter. They are also more *acute, urgent, and violent* The following list, it is hoped, will be found tolerably complete :—

1. *Convulsion.*
2. *Pain of the Head.* 3. *Delirium.* 4. *Stupor.*
5. *Pain of the Chest.* 6. *Dyspnœa.* 7. *Violent Cough.* 8. *Apparent Suspended Respiration.* 9. *A Painful Affection of the Diaphragm.*
10. *Imitation of Croup; and appearance of*—11. *Impending Suffocation!*
12. *Palpitation of the Heart.* 13. *Syncope.*
14. *Dysphagia.* 15. *Hiccough.* 16. *Retching and Vomiting.* 17. *Pain of the Abdomen.*
18. *Dysury.* 19. *Retention of Urine.*
20. *Apparent Paralysis.*
21. *Trismus.* 22. *Tetanus.* 23. *Contracted Hand.* 24. *Distorted Foot.* 25. *Twisted Legs.*

CHAPTER V.

THE DIAGNOSIS OF EPILEPSY, TETANUS, ETC.

247. The transition is natural, in a diagnostic point of view, from Hysteria to Epilepsy, Chorea, Tetanus, &c. There is scarcely any of these latter diseases which is not accurately *imitated* by some form of Hysteria.

248. On the other hand, these various diseases have nothing in common under any other aspect. Hysteria is of little importance, except it become inveterate. Whereas Epilepsy is amongst the most unmanageable of diseases; and Tetanus is almost always, and Hydrophobia always, a fatal disease.

249. In no cases is the pathology so obscure as in the diseases of which I am about to trace the diagnosis. In no cases is the inquiry into that pathology beset with such extreme difficulties.

DIAGNOSTIC ARRANGEMENT OF EPILEPSY, ETC.

I. Chorea.

1. *Incipient.*
2. *Confirmed.*
3. *Inveterate.*

II. Epilepsy.

I. *Idiopathic.*

1. ***The Mild.***

2. *The Severe.*
3. *The Inveterate.*

II. *Symptomatic.*

III. Hydrophobia.

1. *Rabiosa.*
2. *Sine Rabie.*

IV. Tetanus.

I. *Traumatic.*
II. *Idiopathic.*

I. CHOREA.

250. *The History.* Chorea is usually preceded, for weeks even, by some form of dyspepsia. It comes on rather insidiously, so that its first symptoms are apt to be ascribed to trick or an evil habit. It is rarely fatal; but often tedious. It usually affects the young, between the ages of ten and fifteen; but may occur earlier or later. It affects both boys and girls; but the latter more frequently than the former.

I. *The Incipient.*

251. *The Symptoms.* In the beginning of Chorea the youthful patient cannot articulate, cannot write, so well as before. His countenance is moved by grimaces; his hands and feet, by some singular gesticulations. These symptoms augment until they assume,

II. *The Confirmed Form.*

252. *The Symptoms* are now aggravated in every way: the countenance is continually and oddly contorted; the articulation becomes a perfect stammer, and sometimes unintelli-

gible; the hands and arms, the legs and feet, are moved about incessantly and in the strangest manner; the voluntary motions are uncertain and interrupted, the hands cannot be directed to any object, and all attempts to walk are unsteady and issue in the most singular movement, at once painful and ridiculous to witness. Frequently one side is more affected than the other; and this in turns. With these symptoms there are frequently vertigo, and disturbed sleep, and the powers of the mind may become enfeebled.

253. The *Morbid Anatomy* is unknown. In two cases examined by Dr. Willan, from two to four ounces of clear lymph were found in the ventricles of the brain and in the pericardium.

III. *The Inveterate Form.*

254. This form of Chorea is characterized by imbecility of mind, and an almost paralytic convulsive state of some of the limbs.

II. EPILEPSIA.

255. *The History.* Epilepsy appears, in some cases, to be hereditary. It is frequently induced, or its attacks reproduced, by circumstances which derange the stomach or exhaust the system: imprudencies in diet, a neglected state of the bowels, venereal excesses, have been the immediate cause of Epilepsy. No age, sex, or circumstance, is secure from attacks of this disease; but it is more frequently seen in the male than in the female sex. Its returns and its duration are alike altogether uncertain.

256. Idiopathic Epilepsy occurs in forms which may be distinguished as—the Mild; the Severe; the Inveterate.

I. *The Mild Form.*

257. It occasionally happens that, in the midst of some ordinary occupation, the patient becomes suddenly quiescent, neither doing nor seeing what engaged his attention the moment before, ceasing to speak or to listen; in a minute or two

he recovers, and is perhaps unconscious of having been ill; the bystanders, alone, may have noticed the passing event.*

II. *The Severe Form.*

258. *The Symptoms.* The severe form of Epilepsy frequently comes on without the slightest warning; in other cases, some of the following *premonitory* symptoms are experienced:—a peculiar feeling, as of air, passing along the course of one or more limbs, termed the aura epileptica; a sense of torpor in the arms and hands; a sense of vapor, perhaps with the odor of musk, ascending from the stomach towards the head; slight delirium; dimness of sight; drowsiness; grinding of the teeth; some defect of the articulation; difficulty in breathing; hickup, or vomiting; pain of the bowels or diarrhœa. There are further, sometimes, livid flushing of the face, or coldness of the extremities.

259. In the immediate attack, the patient is frequently seized, in the most sudden manner, with insensibility and terrible convulsions; the countenance is livid and distorted, the mouth foams, perhaps with blood, for the tongue is frequently bitten severely; the teeth are forcibly clenched; the hands, arms, and legs, cramped, or thrown forcibly to and fro; the pupil is fixed, and unmoved on the approach of light; sometimes the urine, the alvine evacuation, or the semen, is expelled. After the fit, the patient may recover more or less perfectly; in some instances the memory and consciousness are impaired; in others there is sleep; in others, continued and deep coma. In some cases there is an attack of unconsciousness, and some other symptoms, without convulsion.

260. The attack may continue from fifteen minutes to a whole hour, or hours, or even days. The principal symptoms, in such protracted attacks, are convulsions, and coma.

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* "Animæ defectio levis modo antecedit epilepsiam; modo quasi vicem ejus implet, dum nihil aliud æger sentit præter oblivium quoddam et delirium adeo breve, ut fere ad se redeat, priusquam ab adstantibus animadvertatur."—Heberdeni Commentarii; p. 139.

261. It is by carefully comparing and contrasting the characters of Hysteria and of Epilepsy, that their diagnosi is effected. Sometimes a little acumen and tact are required for this purpose.

III. *The Inveterate Form.*

262. In this form of Epilepsy, the mind and the memory are impaired, and the limbs are crippled by paralysis or spasm.

263. *The Morbid Anatomy* of Epilepsy is very obscure. The observations of MM. Bouchet and Cazauvieilh, made under the eye of M. Esquirol, the latest and the best, lead to the opinion of MM. Delaye and Foville, that whilst the *seat* of mania is the gray substance, that of epilepsy is the white substance of the brain; and that the appearances found are—

1. *Injection, with redness;*
2. *Softening;*
3. *Inequalities;*
4. *Induration.**

264. But it must be acknowledged that much additional investigation is required before the question of the morbid anatomy can be said to be determined. Some facts would lead to the idea that the cerebellum is chiefly affected; others prove that a state of exhaustion is frequently a cause of epilepsy. It is well known too that tumors in the substance of the brain, and ossifications of its membranes, have been the probable organic causes of this sad disease. And what shall we say of hereditary disposition, the action of fright, of orgasm, and other mental causes?

II. *Epilepsia Symptomatica.*

265. There is a peculiar affection which assumes the *epileptic* form, and which is symptomatic of the Acute Dyspepsia. In the course of that disease the patient is sometimes suddenly affected with the following symptoms: viz. sickness, vertigo,

* De l' Epilepsie, &c. pp. 43, 45.

faintishness, and cold perspiration; with paleness of the countenance, and coldness of the extremities; and, with these symptoms, there is a loss of consciousness, and other symptoms of an epileptic seizure.

266. It is highly important to distinguish this curable form of the disease from the more intractable.

267. The Symptomatic Epilepsy also probably occurs in consequence of irregularities of the catamenia. But this case is not so distinct from true Epilepsy, as the one which I have described.

III. HYDROPHOBIA.

I. *Hydrophobia rabiosa.*

268. I. *The History.* The symptoms of the Hydrophobia rabiosa occur generally within four, six, or eight weeks, after the bite of the rabid animal has been inflicted; but the precise period is not so defined as to be diagnostic. The medium duration of Hydrophobia is forty-eight hours.

269. II. *The Symptoms.* The idea of this terrible disease may be conveyed in a few words: it consists in an undue susceptibility of the nerves passing to and from the nervous centres. The nerves of the face are acutely impressed by the slightest breath of air, and the nerves of motion immediately induce the most sad convulsive movements.*

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* There is a property of the nervous system not hitherto noticed by physiologists. It seems to be seated in the sentient and motor nerves, independently of sensation and volition. It is manifested by the following experiment: if, after killing a turtle, in the usual way, the tail and posterior extremities be separated, and a lighted taper be held underneath each in turns, the tail moves, the extremities are motionless. The sentient nerves of the former are connected with the caudal portion of the spinal marrow, and, through it, with the motor nerves; the sentient nerves of the latter are separated from any such connection. If the spinal marrow is withdrawn, the tail also ceases to move. What is the nature of this phenomenon? Sensation and volition are surely out of the question. Whatever this function may be, it seems to preside over the acts of respiration and the action of the sphincters; and to be morbidly augmented in hydrophobia and tetanus, and in some of the lower animals brought under the influence of opium and strychnine.

270. There are, from the first, extreme anxiety of the countenance and inquietude of manner, and a peculiar aggravation of these appearances, at the sight of fluids, or on feeling a gust of air pass over the face, and still more on attempting to drink: by any of these causes, an expression of horror, a sense of suffocation, with constriction about the throat, and convulsive movements, are produced, which are terrible to witness and beyond description. Independently of these causes, there are similar symptoms, only in a minor degree. Later in the disease, the agony of expression and suffering is extreme; viscid saliva forms and collects in the mouth, and is removed with impatience and horror, and spasm about the throat; the mind begins to wander with a terrible delirium; the limbs are moved with continual spasm and agitation. At length the powers of life and of the disease sink together.

271. III. *The Morbid Anatomy* of Hydrophobia is unknown; the *structural complications* hitherto noticed are—

Inflammation—1. *of the Meninges and Substance of the Brain and Spinal Marrow;*
2. *of the Pharynx, Œsophagus, and Stomach;*
3. *of the Trachea, Bronchia, and Lungs.*

272. The vesicles which have been observed under the tongue, have been ascertained by Mr. Kiernan to consist in the sublingual salivary ducts distended with viscid saliva.

II. *Hydrophobia absque rabie canina.*

273. It occasionally happens that we have to discriminate between a real and imaginary case of Hydrophobia. Such an instance is mentioned by the late Dr. Bateman.*

274. Dr. Heberden observes—"Testis fui haud mediocris timoris aquæ, vel cujusvis liquoris, ultra quam dolor devorandi

* Reports on the Diseases of London, p. 188.

intulisset, in ægro, cujus fauces inflammatæ erant, et dein suppuratæ.*

IV. TETANUS.

1. *Tetanus traumaticus.*

275. I. *The History.* Tetanus usually arises from some apparently trifling wound on one of the extremities; the most frequent kind of wound is that induced in the foot by treading on a rusty nail. The latent period and the duration of this terrible disease are about ten days.

276. II. *The Symptoms* of Tetanus are rigidity of the muscles attached to the jaw, trunk, neck, and limbs, inducing *trismus, emprosthotonus, opisthotonus, pleurosthotonus.*

277. There is an expression of anxiety, distress, and pain, and, afterwards, spasmodic contraction and distortion of the countenance. The tongue is apt to be wounded by the teeth. Deglutition becomes painful and difficult. There is a painful spasmodic affection about the ensiform cartilage, peculiar to this affection. The respiration is difficult and hurried, the abdominal muscles are rigid, and the abdomen retracted towards the spine. There is occasional delirium. The voice becomes shrill. The heart palpitates. The bowels are constipated in a degree which is *peculiar*. There is an undue sensibility; and the spasms are excited, or augmented, by every impression upon this function, as by objects moving near and about the patient, and even by walking over the floor about his bed.

278. The affection is frequently alternately mitigated for a period and then returns with greater, longer continued, more painful, and more general spasms.

279. III. *The Morbid Anatomy* is really unknown. Morbid appearances, especially effusion of blood, lymph, or serum,

* Commentarii, cap. 47.

have been found along the spinal marrow; the intestines have been found contracted. But the subject must be examined anew.

II. *Tetanus absque vulnere.*

280. Such a case is detailed by Dr. Willan: it occurred in the beginning of July, 1800. "There had been no accident or local injury whatever. The only previous circumstance, likely to have contributed towards the formation of the disease, was distress of mind. Besides a complete locking of the jaw, there seemed to be a painful rigidity in all the muscles of the neck, while the head was firmly and permanently retracted. The patient was a female, thirty-two years of age, in a debilitated state of constitution; her pulse was obscure and irregular; she had no desire for nourishment; neither could any evacuations be produced from the bowels. After being exhausted with pain, tremors, watchfulness, delirium, and strong perspirations, she died on the eighth day of the disease."*

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* Diseases of London, p. 376.

CHAPTER VI.

THE DIAGNOSIS OF INFLAMMATION, ETC.

281. I now bring before my reader a class of diseases very different from those of which I have treated in the former chapters. As those were, generally speaking, diseases of the whole system, these are more or less of a topical character. It must not be supposed that this distinction can be rigidly drawn; but it may serve the useful purpose of a practical classification. As scarcely any general disease exists without some special complication, so there is no local disease without an affection of the general system.

282. Practically, inflammation is nearly allied to rheumatism and to arthritis, which, indeed, only differ from it by being still more, affections of the general system. These three diseases may, therefore, be aptly treated of together. In a diagnostic point of view, this arrangement is still more appropriate.

ARRANGEMENT OF INFLAMMATION, ETC.

I. INFLAMMATION.
  I. *Serous.*
  II. *Parenchymatous.*
  III. *Mucous.*

II. RHEUMATISM.
  I. *Acute.*
    1. *External.*
    2. *Internal.*
  II. *Chronic.*

III. Arthritis.

I. *Acute.*

1. *External.*

2. *Internal.*

II. *Chronic.*

IV. Nodosity.

I. INFLAMMATION.

283. Inflammation must be noticed only briefly in this place; separated from its seat, it presents, indeed, but an abstract idea. Still there are a few *practical* remarks to be made upon it.

I. *Serous Inflammation.*

284. I. *The Symptoms and Effects of Remedies.* Inflammation of the serous membranes is distinguished principally by *two* events: 1. the almost entire absence of the heat of surface, debility and tremor of the muscles, the aching pains, the affection of the head, and the hurry of breathing, observed in fever; and 2. by extreme tolerance of loss of blood.* There is generally acute pain.

285. II. *The Morbid Anatomy* consists principally of the effusion of lymph and the effusion of serum.

II. *Mucous Inflammation.*

286. I. *The Symptoms and Effects of Remedies.* In inflammation of the mucous membranes, there is more of febrile symptoms, less pain, and less tolerance of the loss of blood, than in mucous inflammation; there is the augmented excretion of mucus.

287. II. *The Morbid Anatomy.* The mucous membranes are far more apt to ulcerate than the serous: besides ulcera-

* The degree of tolerance of loss of blood depends upon two circumstances: 1. the disease must be fully formed; 2. it must not have induced havoc of the powers of the system. It must neither be merely incipient nor inveterate.

tion, there is usually a morbid secretion of mucus, and frequently the effusion of blood.

III. *Parenchymatous Inflammation.*

288. I. *The Symptoms* of this form of inflammation are, in some respects, intermediate between those of serous and mucous inflammation; but they approximate far more to the former than the latter. There is less pain; but there is little less tolerance of loss of blood.

289. II. *The Morbid Anatomy* consists, generally speaking, in hypertrophy and induration; but other changes are observed, which are peculiar to individual organs.

II. RHEUMATISM.

290. Rheumatism occurs in the Acute, Chronic, and Intermediate Forms, and is external or internal in its seat.

I. *Acute Rheumatism.*

291. I. *The History.* The Acute Rheumatism usually arises from exposure to wet and cold, and affects the young, the athletic, and the male sex, principally. Chronic Rheumatism is more frequent in females, the old, and the infirm; and it is a frequent *sequela* of the acute form of the disease.

292. II. *The Symptoms.* The Acute Rheumatism is denoted by a painful affection of several or of most of the limbs, accompanied by tenderness, and a slight degree of tumor, and of redness. The joints, and the course of the muscles, are principally, and successively, affected; the pain is comparatively slight during a state of rest, but rendered excruciating on muscular motion or effort. Acute Rheumatism is further characterized by a great expression of pain in the countenance, with excessive perspiration on the forehead, and a loaded and moist state of the tongue. The patient generally lies on his back, and especially avoids every motion of the body or limbs; or if he does move, he experiences an acute aggravation of

pain, calls out, and gives a prompt check to the muscular effort. There is little languor or debility, little disturbance of the mental faculties. The general surface is usually covered with perspiration; the skin is warm, pale, and often profusely moist; and a peculiar odor is exhaled. The pulse is frequent, strong, and full. The functions of the head are unaffected. The appetite is sometimes little impaired. The bowels regular. The urine deposits a sediment, especially on the decline of the affection.

293. In some cases there is a degree of soft swelling, communicating an obscure sense of fluctuation. This occurs especially, or perhaps only, near the joints. It is often observed on the outside of the patella, and on the inside of the patella rather up the thigh.

294. III. *The Complications or Metastases.* The subject of Internal Rheumatic Affections is one of the very deepest interest, and still demand a renewed and connected investigation. Rheumatism of the Heart is that form of internal rheumatism best known. It was first distinctly pointed out by Dr. Pitcairn; afterwards it was particularly noticed by Dr. Baillie,* Mr. David Dundas,† and Dr. Wells.‡ The head; the pleura and the lungs; the liver, and some of the other abdominal viscera, have also been supposed to be affected by Rheumatism. But the extent and the limits, the history, the diagnosis, and the pathology, of Internal Rheumatism, are still to be ascertained. It may exist as a *complication* of external Rheumatism, or may take its place by *metastasis.* It then affects,

1. *The Meninges and Brain.*
2. *The Pleura and Lungs.*
3. *The Pericardium and Heart.*
4. *The Pleura and Diaphragm.*
5. *The Peritonæum, Liver, &c.*

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* See the Morbid Anatomy.

† The Med. Chir. Trans. vol. i, p. 31.

‡ Trans. of a Soc. for the Improvement of Med. and Surg. Knowledge, vol. iii, p. 373.

295. But, besides this list of Internal Rheumatisms, there is a series of rheumatic affections of the parietes of the cavities, which it is very essential to distinguish. These are,

1. *Of the Head; or hemicrania.*
2. *Of the Thorax; or pleurodyne.*
3. *Of the Parietes of the Abdomen.*

296. IV. *The Effects of Remedies.* There is, in Rheumatism, as in serous inflammation, an extraordinary and characteristic degree of tolerance of the loss of blood.

297. V. *The Morbid Anatomy* consists principally of thickening of the synovial membranes, the periosteum, and the articular ligaments and cartilages, and of effusion into the joints and bursæ.

II. *Chronic Rheumatism.*

298. In Chronic Rheumatism the pain is more fixed, and less general, and there is not even the slight tumor, or discoloration, nor the tenderness, of the Acute form of Rheumatism. But the limbs gradually lose their power, their sensibility, and sometimes their wonted bulk even, and the patient becomes extremely lame. Or these affections take place in a slight degree only. There is at the same time an absence of the febrile symptoms peculiar to the acute Rheumatism.

III. ARTHRITIS.

299. Arthritis, like Rheumatism, occurs in an Acute or Chronic form, and is seated externally or internally.

300. *The History.* Arthritis seldom occurs during early youth. It is decidedly hereditary. It generally recurs in the person who has been once affected; sometimes at nearly stated periods; occasionally from accidental causes. It affects the same, or different, and even successive parts, on these occasions; the pain is then less severe, but the subsequent debility longer continued. Arthritis affects the male sex and the intemperate principally, but by no means exclusively. It is generally de-

pendent on a deranged state of the system, and especially of the stomach and bowels; it frequently attends the Acute or Protracted Dyspepsia; and it is very apt to lead to cretaceous deposites in and about the joints, and to calculous deposites in the kidney or bladder.

I. *Acute Arthritis.*

301. I. *The Symptoms.* The Acute Arthritis, especially on its first accession, generally affects one particular joint alone,—most frequently the ball of the great toe, but occasionally the ankle, the knee, the hand, or the elbow. The attack frequently begins without apparent cause; it is most apt to take place during the night or early in the morning; it induces extreme pain, tenderness, throbbing, or sense of weight, even whilst the limb remains unmoved; it is attended with tumor, a vivid redness, and an appearance of distention of the skin; and afterwards with a more diffused and œdematous tumidity. The attack is often preceded by some symptoms of disorder of the digestive organs, or of the general health; and it is sometimes attended with feverishness, heat of the skin, inappetency, a loaded tongue, thirst, constipation, and a loaded state of the urine, from which a copious sediment is deposited.—The violence of the pain frequently remits during the morning, and again returns in the evening.*

302. II. *The Complications or Metastases.* Internal Arthritis is far more obscure than Internal Rheumatism even. They assume the following forms principally:

1. *Vertigo; tinnitus aurium.*
2. *Palpitation; faintishness.*

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* The diagnosis between rheumatism and gout is generally sufficiently obvious: 1. the former is excited chiefly by external, the latter by constitutional, causes; 2. the former affects many, larger joints, the latter more frequently one smaller one; 3. the former may suppurate, the latter seldom or never suppurates, but, on the contrary, is apt to lead to peculiar articular deposites of urate of soda and phosphate of lime; 4. the former is characterized by the state of the perspiration, the latter by the peculiarity of the urinary secretion and deposites.

3. *Nausea; pain at the stomach or in the bowels.*
4. *Calculus, or gravel.*

303. In one case described by M. Cruveilhier, the patient experienced several attacks of Apoplexy. Bayle describes the expectoration of calculi as apt to occur in arthritic patients.

II. *Chronic Arthritis.*

304. Chronic Arthritis consists in a permanent pain, tumor, weakness, and immobility, of the part or parts which had been previously affected with Acute Arthritis, especially of the feet and the hands. Eventually, arthritic concretions, and ulceration, take place.

IV. NODOSITY.

305. Besides Rheumatism and Arthritis, there is another disease of the joints, less known. It was first fully described by the late Dr. Haygarth of Bath.

306. This affection consists in hard, pale, and painful swellings, about the different articulations, especially those of the fingers, but also successively about any of the other joints. This affection increases gradually, and often induces much suffering and deformity. The swellings are sometimes tender under pressure; they are confined to the immediate vicinity of the articulations, and do not appear to affect the muscles; the motions of the joints become much impeded, and sometimes a degree of dislocation occurs.*

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* Dr. Haygarth observes, "The nodes appear most nearly to resemble Gout. Both of them are attended with pain and nodosity of the joints: but they differ essentially in many distinguishable circumstances. 1. In the gout, the skin and other integuments are generally inflamed, with pain which is often acute, soreness to the touch, redness and swelling of the soft parts, but in no respects like the hardness of bone. 2. The gout attacks the patient in paroxysms of a few days, weeks, or months, and has complete intermissions at first for years, but afterwards for shorter periods. 3. The gout attacks men much more frequently than women.

307. I have seen this disease principally in females somewhat advanced in years: it attacks the first joint of several fingers. I have also seen a similar affection in a youth, which affected the second joint of several fingers, and not the first, inducing considerable thickening.

"These nodes are clearly distinguishable from Acute Rheumatism, because they are not attended with fever. The tumor of the joints is much harder, more durable, and less painful, in the former than in the latter disease. The Nodes are totally different from Chronic Rheumatism, because the latter chiefly affects the muscles, and is seldom attended with any swelling of the affected parts."

CHAPTER VII.

THE DIAGNOSIS OF TUBERCLES, SCIRRHUS, ETC.

308. The subjects treated of in this chapter have doubtless a constitutional origin or connexion. They may be isolated, or occur in a single organ only; but they are far more frequently observed in considerable numbers and in several organs at once. There is, also, very distinctly, a series of general or constitutional symptoms, arising from the peculiar influence of the disease, independently of its seat, but apparently commensurate with its degree of diffusion. These symptoms are more marked in Tubercles than in any other disease of this class. It is in Tubercles, at least, that I have been most successful in noticing them; to my description of the early symptoms of this disease, indeed, I would beg to call the attention of the young clinical student in a particular manner.

309. The constitutional symptoms of Melanosis are exceedingly obscure.

310. The symptoms of Encephalosis are also very obscure, and the disease is rarely detected until a tumor has made its appearance externally.

311. A similar remark applies to Scirrhus.

312. There is a sort of general diagnosis between organic disease and such derangements of function as occur in the Dyspepsiæ, which it may be well to sketch in this place:—

313. Insidious organic disease in general, is distinguished by a regular, slow, progressive, unvaried course, during which

the patient becomes gradually affected with paleness, debility, and emaciation. The countenance becomes pale, thin, shrunk, perhaps deeply wrinkled, and expressive of disease. The muscular strength becomes much, permanently, and uninterruptedly, impaired. The general surface and the muscular flesh waste and shrink, whilst the skin remains soft, and free from dryness and exfoliation. The head is, in general, little affected with pain or vertigo; the mind is little despondent; the temper equable. The respiration is not affected with hurry, nor the heart with palpitation. The pulse is regular, and perhaps permanently frequent. The tongue is little affected, and the breath is generally untainted. The ankles often become œdematous, and at length the limbs are liable to be affected with anasarca, and the abdomen with ascites.

314. In chronic functional derangements there is usually a train of phenomena of a very different kind. The complaints are characteristically variable: one day the patient conceives himself well, another he is as bad as ever; each successive day renews his old, or adds some new complaint; and the symptoms are as manifold as they are variable. There is often vertigo, or pain of the head; the mind is despondent; the temper variable, and apt to be querulous; the patient broods over his complaints in solitude, but perhaps forgets them in society; and he is nervous in a variety of ways. The respiration is sometimes hurried; the beating of the heart irregular. The tongue is in general loaded, more or less swollen, and its papillæ are distinguished at the point; the breath is generally tainted. The stomach, appetite, and bowels, are more or less disordered. There is frequently, during the prevalence of these complaints, little or no permanent paleness, emaciation, or debility; but the complexion is variable, and there is occasionally an incapability of mental or muscular exertion. Disease probably supervenes, before there is any serious or permanent loss of flesh.

ARRANGEMENT OF TUBERCLES, SCIRRHUS, ETC.

I. Tubercles.

1. *In the Head.*
2. *In the Thorax.*
3. *In the Abdomen.*

II. Melanosis.

III. Encephalosis.

IV. Scirrhus.

I. TUBERCLES.

315. *The History.* Nothing can be more insidious than the formation and progress of Tubercles. Tuberculous disease in the abdomen is the most insidious of all those diseases which may be considered as necessarily and progressively fatal; I have repeatedly traced this tuberculous affection, through a distinct course of four, five, and six years. Tubercles are doubtless frequently of hereditary* origin, and sometimes even congenital. They seem to be induced, in the predisposed, by low diet; the families of butchers are said to enjoy a comparative immunity from them. They are also induced by exposure to cold and damp; yet it seems to have been ascertained, by the late Dr. Wells, that in localities where intermittents abound, phthisis is proportionably rare.

I. *In the Head.*

316. *The Symptoms.* Tuberculous affection of the encephalon, can, I believe, only be suspected, and distinguished from insidious inflammation or the slow formation of tumors,

* The very *seat* of tubercles is apparently determined by hereditary predisposition. In one family we meet with successive cases of phthisis, in another of tubercular disease in the abdomen.

by observing the concurrent existence of tubercles, or of some other strumous affection, in other parts of the body. Or if there do exist symptoms which distinguish this morbid affection within the head, they have not hitherto been noticed with accuracy.

II. *In the Thorax.*

317. Before the stethoscope can detect the existence of tubercles in the lungs, the constitution of the patient frequently takes the alarm, and the functions of the circulation and of the respiration become slightly accelerated, or are easily hurried. I have frequently observed that, with a complexion which is apt to alternate between the pallid and the vivid, there is a degree of sensitiveness to cold, of susceptibility of the effects of heat, of breathlessness on moving quick or ascending a hill or stair-case, and of cough; this cough is frequently slight, hacking, and dry, and scarcely or not at all observed by the patient or friends. In other cases, and especially in females, the countenance is pallid, with the slightest waxen or lemon hue, a tendency to blue lividity observed in the lips and at the roots of the finger nails, and a disposition to coldness of the extremity of the nose, the ears, and the hands and feet. These changes are frequently so insidious, that they are apt to be first observed, not by those who are in the daily habit of seeing the patient, but by some one who sees him after a certain interval and is struck by the change. Even at this early period, I have frequently found, on inquiry, that the catamenia have ceased. And I would observe, that this cessation of the uterine discharges is generally, or at least frequently, complete at once; unlike the case of disorder of the general health, in which the flow becomes very slowly paler and more scanty, and, except in chlorosis, not ceasing altogether, and, even in that disorder, generally very gradually. This is the more remarkable, because the condition of the uterus, under the influence of tuberculous disease, is one of great proneness to conception, a change which has, in its turn, a reflex action in arresting the progress of the tuberculous affection. The fever which accompanies phthisis, like other symptomatic fevers, and unlike

all pure and primary fevers, is frequently unattended by muscular debility, or by affection of the head, or of the digestion. There is no headache or vertigo, and the patient often continues to walk or to ride to the last. There is a degree of feebleness and stooping observed in the gait, very early in the disease; and this remains little augmented, until the colliquative perspiration or diarrhœa bring with them their own debility and emaciation.

III. *In the Abdomen.*

318. Tuberculous disease in the abdomen, is greatly characterized by three symptoms:—1. great tendency to coldness and lividity of the extreme parts of the body, 2. a frequent pulse, and 3. slow but progressive emaciation. The aspect of the countenance is altogether peculiar, especially in cold weather, together with an obvious emaciation and expression of languor and disease; the end of the nose is livid in color, and cold to the touch; and there is in general, either paleness or a slight degree of flushing. Similar observations may be made respecting the general surface. There is emaciation; the skin is soft, and apt to become moist, and there are generally perspirations during sleep, especially in the early part of the morning; to prevent this perspiration, the patient frequently endeavors to keep awake; there is an undue sensibility to cold observed on the slightest unexpected exposure,—as the opening of a door,—and the patient usually creeps over the fire; sometimes I have observed the back of the hands, and the fore part of the legs, to assume a peculiar brown color, from being burnt by this constant exposure to heat; the hands and fingers are apt to be extremely livid and cold. The mode of walking is peculiar, being attended by stooping, weakness, and caution. The pulse is always frequent, and generally regular. It is earlier and longer frequent, in tuberculous affection of the abdomen, than in that of any other cavity. I have known the pulse to be between one hundred and one hundred and twenty for several years. The emaciation in tuberculous disease of the abdomen is uniformly but very slowly progressive. It is accompanied by a state of unvaried debility; and in the later

periods of the disease, by some œdema, generally observed more in one leg than the other. The other symptoms of this morbid affection are less constant; they are chiefly an augmented appetite for food, copious, pale, alvine evacuations, and pain and sometimes a perceptible tumor, in some part of the abdomen, especially in the iliac or hypogastric regions. The catamenia simply become scanty, or cease, without undergoing the changes observed in some cases of disorder of the general health. There are altogether a peculiar appearance of the countenance, a peculiar mode of walking, and a peculiar attitude and manner in general, all denoting debility and great disease; if to these be added the peculiar sensibility to cold, and tendency to coldness and lividity of the extreme parts of the body, the very gradual emaciation, and the habitual frequency of the pulse, it is scarcely possible to mistake the nature of this disease.

319. The following descriptions of the general symptoms in Melanosis and in Encephalosis are taken from the inimitably beautiful work of Laënnec.

II. MELANOSIS.

320. "Les mélanoses, comme toutes les matières accidentelles qui n'ont point d'analogues dans les tissus et les liquides de l'économie animale, produisent des effets généraux et des effets locaux. Parmi les premiers, le plus constant est la diminution graduelle des forces vitales, et une altération très-marquée dans la nutrition, d'où résultent un amaigrissement considérable et l'hydropisie du tissu cellulaire, quelquefois même celle des membranes séreuses. Les sujets que j'ai vu mourir par suite du développement de mélanoses dans un organe quelconque, et ceux même chez lesquels cette matière occupait une grande partie du poumon, n'avaient pas de fièvre continue et bien marquée: les deux observations de mélanoses du poumon sans complication contenues dans l'ouvrage de Bayle* donnent le même résultat. Si ce caractère est constant

* Voy. Recherches sur la Phthisie pulmonaire, Obs. xx et xxi.

comme je suis très-porté à le croire, il pourra servir à faire distinguer pendant la vie la consomption produite par les mélanoses du poumon, de la phthisie tuberculeuse, qui, comme l'on sait, est constamment accompagnée pendant presque toute sa durée d'une fièvre hectique assez ordinairement caractérisée par deux exacerbations, dont l'une a lieu vers le milieu du jour et l'autre dans la nuit.*"

III. ENCEPHALOSIS.

321. "Pendant la plus grande partie de l'existence des encéphaloïdes, il n'y a pas de fièvre sensible; et, dans beaucoup de cas même, la mort arrive sans que le pouls du malade ait jamais présenté d'altération notable. Quand il existe un mouvement fébrile bien marqué, il paraît ordinairement dû à des circonstances accidentelles, plutôt qu'au développement des encephaloïdes en lui-même. Ainsi, lorsque ces tumeurs, à raison de leur position, gênent des organes essentiels, ou occasionnent une inflammation locale plus ou moins étendue; lorsque l'irritation produite par leur présence détermine un flux abondant d'un liquide quelconque, la fièvre se développe assez souvent, et peut même devenir continue et très-forte. Mais ce n'est guère qu'aux approches de la mort que l'on voit paraître la fièvre, sans qu'on puisse l'attribuer à autre chose qu'à l'action délétère de la matière morbifique sur l'économie animale.

322. "Les encéphaloïdes peuvent exister pendant longtemps sans produire un amaigrissement notable. Mais ce symptôme est constant vers l'époque de la terminaison de la maladie, et il marche alors d'une manière très-rapide. Les seuls cas où la mort arrive sans qu'il y ait eu d'amaigrissement sont ceux où elle est déterminée par la situation même des tumeurs morbifiques, et par la pression qu'elles exercent sur des organes essentiels, comme le cerveau ou le poumon. Les cas, au contraire, où l'amaigrissement commence de bonne heure et presque dès l'origine de la maladie sont ceux où la matière morbifique, à

* De l'Auscultation, par R. T. H. Laënnec, t. ii, pp. 30—31.

raison du lieu où elle s'est développée, occasionne un flux colliquatif, propre par lui-même à causer l'amaigrissement, comme il arrive dans les squirrhes de la matrice. L'hydropisie n'est point un effet nécessaire du développement de la matière morbifique dont il s'agit; mais elle survient cependant assez fréquemment aux approches de la mort, surtout lorsque la matière cérébriforme s'est développée dans le foie ou dans la matrice."*

IV. SCIRRHUS.

323. Scirrhus occurs later in life, generally speaking, than encephalosis. It is chiefly remarkable by inducing a pallid, sallow hue of the countenance, with emaciation. The pulse is not accelerated, at the first, and there is no hectic. Afterwards there are, with these symptoms, peculiar pains, resembling those of rheumatism, and œdema or anasarca.

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* De l'Auscultation, par R. T. H. Laënnec, t. ii, pp. 62—63.

CHAPTER VIII.

THE DIAGNOSIS OF THE HÆMORRHAGIES.

324. After inflammation and tubercles, hæmorrhagy is amongst the most frequent and important of diseases, especially as it occurs in the brain and the lungs, in the substance of other organs, and from the stomach, the intestines, the kidney and bladder, the uterus, &c.

325. The use of the term hæmorrhagy must be extended beyond its literal meaning. The congestion which precedes the flow of blood cannot be distinguished by the generic term, from the clot of blood or the flow of blood, when the parietes of the vessels have given way. They are different stages of the same affection, which must be distinguished by an epithet or in description.

326. The different forms of hæmorrhagy are very numerous, and all its forms are probably not yet distinguished.

327. The first and simplest form is that which results from the interrupted return of the venous blood. In this manner, *congestion* first, then *effusion* of blood, occurs in the lungs and in the brain, and possibly in the substance of some other organs, in disease of the heart, and especially in contraction of the left auriculo-ventricular orifice. In this manner, congestion and effusion of blood occur in the course of the intestinal tube, from compression or obstruction in the course of the vena porta.

328. The second form of hæmorrhagy is that which occurs

from too forcible a projection of the blood from the heart. Thus effusion into the brain is an effect of hypertrophy of this viscus.

329. The third form of hæmorrhagy occurs—in cases in which the return of the venous blood is not impeded, or the flow of the arterial blood augmented—from disease of the minute vessels themselves, as we observe in some cases of hæmorrhagy into the brain or from the lungs; in cases of broken texture, tubercles; &c.

330. A fourth form of hæmorrhagy occurs, far more frequently than is supposed, in the Acute and other forms of Dyspepsia. It takes place from the mucous surface, and especially from those of the nostrils, the stomach and intestines, constituting the most frequent forms of hæmatemesis and melæna. It also doubtless takes place from the mucous lining of the gall ducts, the kidney, the uterus, &c.

331. But, besides these forms of hæmorrhagy, there are others, if possible, still more formidable:

332. In one case, cysts of blood are formed in the parenchymatous substance of various organs, simultaneously, or in several parts of the same organ. M. Cruveilhier observes—"Plusieurs faits prouvent manifestement la connexité qui existe entre les foyers sanguins des différens organes. Aucun n'est plus remarquable que celui qui a été soumis à la Société anatomique par M. Robert, l'un de ses membres. Tous les organes, la peau, le tissu cellulaire, les muscles, le cerveau, les poumons, la rate, le foie, le pancréas, l'utérus, etc. étaient comme farcis de foyers sanguins. Les poumons en contenaient surtout un nombre considérable. Malheureusement on n'a pu obtenir aucuns renseignemens positifs sur les symptômes correspondans. Il existe des conditions de l'organisme dans lesquelles des hémorrhagies spontanées avec déchirure peuvent se manifester simultanément dans tous ou presque tous les systèmes d'organes. Ces conditions n'ont été bien appréciées que pour le scorbut. Mais dans le plus grand nombre des cas, un seul organe est le siége de ces hémorrhagies."

333. In other cases there is less disposition to hæmorrhagy into the substance of organs, but the blood is poured out from

the mucous membranes, or immediately underneath the cuticle. This affection constitutes the *Purpura hæmorrhagica.*

334. In the third place must rank the disease termed *Scorbutus*, a disease totally distinct, I think, from Purpura. In this disease effusions of blood are found in the spleen, the liver, the uterus, the heart, &c.*

335. Besides the forms of hæmorrhagy already enumerated, I have witnessed another, which displayed, on dissection, numerous distinct effusions of blood in the substance of the brain, together with an obvious admixture of pus or coagulable lymph with the blood in the large veins: the eyes had become affected with chemosis and ulcerations, and had burst.

336. The different forms of hæmorrhagy may, then, be arranged in the following manner:

ARRANGEMENT OF THE HÆMORRHAGIES.

I. Topical Hæmorrhagy.

1. *From obstructed return of the Venous Blood.*
2. *From excessive impulse of the Arterial Blood.*
3. *From disease of the Minute, or Capillary, Vessels.*

II. Dyspeptic Hæmorrhagy.

1. *Epistaxis.*
2. *Hæmatemesis.*
3. *Melæna*, &c.

III. General Hæmorrhagy.

1. *Cysts of Blood in several Organs, or several parts of the same Organ.*

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* Cruveilhier.

IV. Purpura.

1. *Simplex.*
2. *Hæmorrhagica.*

V. Scorbutus.

337. I. Topical hæmorrhagy depends upon some local disease,—in the heart or large veins,—or in the organ which is the seat of the hæmorrhagy itself. The account of the symptoms will be found under these Local Diseases respectively.

338. II. For the general symptoms in the Dyspeptic Hæmorrhagy, I must refer to Chapter IV, where they are so amply detailed.

339. III. The history and symptoms of that form of hæmorrhagy in which distinct effusions of blood occur in various organs of the body, § 332, are altogether unknown.

340. It only remains for me to treat, in this place, of the constitutional symptoms of Purpura, and of Scorbutus, which I propose to do at considerable length.

IV. PURPURA.

341. Purpura occurs under three forms:—1. Purpura simplex, 2. Purpura hæmorrhagica, and 3. Purpura urticans. It is the second which is principally to occupy us in this place.

I. *Purpura simplex.*

342. The purpura simplex is characterized by an appearance of petechiæ, or dark red spots, without much disorder of the constitution, but with paleness, languor, debility, and pain of the limbs. They are diffused chiefly over the arms, legs, breast, and abdomen, being largest on the legs, though seldom confluent. In some cases, the appearance of the petechiæ is preceded, for a day or two, by a general red efflorescence.

II. *Purpura hæmorrhagica.*

343. I. *The History.* The usual causes of this disease are a sedentary mode of life, poor diet, impure air, anxiety of mind, laborious work. Of seventeen patients seen by Dr. Willan, two only were men; nine were women, of whom four were beyond the age of fifty, three were boys, and three infants, not more than a year old. This disease is sometimes preceded by pallor and lassitude. Its duration is uncertain, and varies from fourteen days to as many months. It combines hæmorrhage, vibices, and anasarca.

344. II. *The Symptoms.* The purple spots appear first on the legs, and at uncertain periods on the thighs, arms, and trunk of the body, the hands and face being generally free from them. They are numerous on the tonsils, uvula, palate, gums, tongue, and inside of the cheeks and lips, where they are sometimes raised and papulated, and discharge blood on the slightest pressure. The color of the spots on the surface of the body is at first a bright red, but it soon becomes purple or livid; the cuticle over them is smooth and shining, but not elevated. They are nearly of a circular form but of different sizes; sometimes few and distinct, sometimes numerous and coherent: sometimes distributed uniformly over the surface, sometimes in irregular clusters. Many of the patches disappear in a week or two, while fresh ones arise in other places. They are largest and most vivid in the evening or night, smaller and of a yellowish hue during the day. Generally they are interspersed with vibices or livid patches resembling the effects of a bruise.

345. The hæmorrhage takes place from the nostrils, fauces, gums, lips and cheeks, the tongue, the lungs, the stomach or intestines, or from the uterus even, in women of an advanced age. It sometimes precedes, sometimes succeeds, and sometimes accompanies the eruption: it is at first profuse, and cannot be easily restrained; in some cases it returns daily at a stated hour; after a week or two it becomes less violent and frequent. When the hæmorrhage flows from the gums and

mouth, the spots on the surface of the body are numerous and smaller than usual, and the fauces, gums, and tongue, sometimes appear livid and tumefied. This complaint is attended with extreme debility and depression of spirits. The pulse is generally weak and frequent. Febrile paroxysms occur at intervals. Sometimes there are shiverings, sometimes heat without shiverings.—At a late period, anasarca takes place, first about the ankles, and subsequently in the thighs, body, arms, cheeks, and eye-lids, with sallowness of the complexion, emaciation, and coldness of the extremities.

346. III. *The Complications* may be enumerated thus:

I. *Petechiæ upon, or*

II. *Hæmorrhagy from,*

I. *The Mucous Membrane of*
1. *The Nostrils.*
2. *The Gums, the Tongue.*
3. *The Bronchia.*
4. *The Stomach and Intestines.*
5. *The Kidney or Bladder.*
6. *The Uterus.*

II. *The Serous Membranes.*

III. *Parenchymatous Hæmorrhagy.*

IV. *The Effects of Hæmorrhagy upon*
1. *The Brain.*
2. *The Heart, &c.*

V. *Anasarca.*

V. SCORBUTUS.

347. I. *The History.* Scorbutus is generally induced by a deficiency of fresh vegetable food. It is also occasionally referred to other errors in diet, to the respiration of a crowded or otherwise impure atmosphere, to excessive fatigue, anxiety, &c.

348. II. Scorbutus is usually distinguished by a set of symptoms designated by the term *putrescent*, such as a spongy and

ulcerated state of the gums, with extreme fœtor of the breath; gangrenous ulcers; a fœtid state of the urine, &c.

349. The countenance and skin generally become peculiarly pale, and sallow, or yellowish, and tumid; there are extreme debility; a disposition to somnolency, to syncope, &c.; shortness of breathing; a feeble pulse; &c. Petechiæ and vibices appear on various parts of the body; the gums bleed; former cicatrices are dissolved, and the ulcerated surfaces bleed and perhaps slough; there is hæmorrhagy from the bowels, the kidney, or bladder, the uterus, &c.; serous effusions take place into the cellular membranes and the cavities.

350. III. *The Morbid Anatomy* of Scorbutus consists of the effusion of blood, or of bloody serum alone, into the various parenchymatous textures, or serous cavities of the body, or from the mucous membranes; of an uncoagulable condition of the blood, and of softening of the solids.

351. It is a question of intense interest how far the three last morbid affections are allied; and the entire subject of hæmorrhagy is one of great promise to the new inquirer.

352. The hæmorrhagies are not remotely allied to the dropsies, of which I propose next to treat. The effusions and the urine in the dropsies frequently contain the albuminous, and sometimes even the coloring part of the blood; and hæmorrhagy within the brain frequently occurs in these diseases. Dropsy, on the other hand, frequently supervenes in the hæmorrhagies.

CHAPTER IX.

THE DIAGNOSIS OF THE DROPSIES.

353. The transition is easy from the hæmorrhagies to the Dropsies.

354. Dropsies differ, like the hæmorrhagies, according to their *causes*. The diagnosis and the treatment are, therefore, principally suggested by the history.

355. I purpose, in this place, to enumerate the principal causes of this disease, and to construct an arrangement or tabular view of the subject upon this principle.

356. The *first* cause of Dropsy which I shall mention is *inflammation*. From this cause we have very frequently general anasarca, and effusions from the several serous membranes, as the arachnoid, the pleura, the pericardium, the peritonæum, the tunica vaginalis testis, &c.

357. The *second* cause of Dropsy is some exanthematous disease, and especially scarlatina.

358. A *third* cause of Dropsy is exhaustion from loss of blood.

359. A *fourth* cause, is debility from chronic disease or other causes, as old age, excessive fatigue, anxiety, &c.

360. A *fifth* and frequent cause of Dropsy is obstruction of the flow of the venous blood: it takes place in disease of the heart, disease of the lungs, disease of the liver, especially the cirrhose, and in disease of the veins themselves.

361. A *sixth* source of Dropsy has been pointed out by Dr. Bright, as consisting in disease of the kidney.

362. These various forms of Dropsy may be thus arranged:

DIAGNOSTIC ARRANGEMENT OF THE DROPSIES.

I. Inflammatory Dropsy.

II. Exanthematous Dropsy.

III. Dropsy from Exhaustion.

IV. Dropsy from Debility.

V. Dropsy from Obstruction of the Venous Blood.

VI. Dropsy from Disease of the Kidney.

I. INFLAMMATORY DROPSY.

363. I. *The History.* This form of Dropsy generally takes place rather suddenly, and is to be traced to exposure to wet and cold.

364. II. *The Symptoms* consist in the appearance of diffuse, tense, anasarca, generally with dyspnœa, and frequently with the signs of effusion into the head, thorax, or abdomen, and with a coagulable and occasionally a sanguineous condition of the urine.

365. III. *The Effects of Remedies.* There is a remarkable degree of the tolerance of loss of blood.

366. IV. *The Morbid Anatomy* varies according as the Dropsy is confined to the cellular membrane, or extended to the serous membranes; in the latter case there is frequently the effusion of coagulable lymph, as well as of serum, from the serous surfaces. The kidney, in protracted cases, becomes disorganized, granular, scabrous, &c.

II. EXANTHEMATOUS DROPSY.

367. I. *The History.* This form of Dropsy succeeds to

some exanthematous diseases, but by far most frequently to *scarlatina.*

368. II. *The Symptoms* are similar to those just detailed as designating the Inflammatory Dropsy; there is the same disposition to effusions into the brain, thorax, and abdomen.

III. DROPSY FROM EXHAUSTION.

369. *The History and Symptoms.* This form of Dropsy is known by being traced to the loss of blood. It occurs in the form of anasarca and of effusion into the cavities. I do not know whether the urine be coagulable.

370. A similar form of Dropsy is induced in cases of neglected *Chlorosis.*

IV. DROPSY OF DEBILITY.

371. *The History and Symptoms* sufficiently establish and distinguish this form of Dropsy. The patient has frequently had returns of dropsical affection and has a pale and cachectic appearance. The urine coagulates into brownish flakes by exposure to heat.*

V. DROPSY FROM OBSTRUCTION IN THE FLOW OF VENOUS BLOOD.

372. This form of Dropsy arises from

1. *Disease of the Heart, especially of the valves.*
2. *Disease of the Lungs.*
3. *Disease of the Liver, especially the 'Cirrhose.'*
4. *Pressure, or Disease, of the Veins themselves.*

373. *The History and Symptoms.* This kind of Dropsy is distinguished by ascertaining the seat and nature of the original disease. Like the rest, it assumes the form of anasarca, and of effusion into the serous cavities, and into the cellular

* See Dr. Bright's invaluable "Reports," vol. i, p. 3.

membrane of the internal organs, as *the lungs, the intestines*, &c. *The urine is not coagulable.**

VI. DROPSY FROM DISEASE OF THE KIDNEY.

374. For the detection of this species of Dropsy, the profession and mankind are indebted to Dr. Bright.

375. I. *The Symptoms.* It is distinguished by the coagulable condition of the urine. The urine is apt sometimes to be sanguineous.

376. II. *The Complications.* There is, in this kind of Dropsy, occasionally

1. *An Attack of Apoplexy;*

and frequently

2. *Inflammation of the Serous Membranes, and especially of the Pleura.*

The *liver* is usually found free from disease.*

377. III. *The Morbid Anatomy.* Dr. Bright observes—"In all the cases in which I have observed the albuminous urine, it has appeared to me that the kidney has itself acted a more important part, and has been more deranged both functionally and organically than has generally been imagined. In the latter class of cases I have always found the kidney decidedly disorganized. In the former, when very recent, I have found the kidney gorged with blood. And in mixed cases, where the attack was recent, although apparently the foundation has been laid for it in a course of intemperance, I have found the kidney likewise disorganized."†

378. Dr. Bright describes three kinds of this disease of the kidney. In the *first*, the kidney loses its usual firmness and becomes of a yellow mottled appearance externally. The size of the kidney is not materially altered. In the *second*, the whole cortical part is converted into a granulated texture, and there appears to be a copious morbid interstitial deposite of an opaque white substance. The kidney is generally rather larger

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* Dr. Bright's Reports, vol. i, pp. 1-4; 93; 119. † Ibid. vol. i, p. 4.

than natural. In the *third*, the kidney is rough and scabrous externally, and rises in numerous projections not much exceeding a large pin's head, yellow, red, and purplish; it is hard and inclined to be lobulated, and its texture approaches to a semi-cartilaginous firmness: there appears, in short, a contraction of every part of the organ, with less interstitial deposite than in the last variety.*

379. I did not think it necessary to describe anasarca. For the tyro, it may, however, be proper to state, that this affection consists in a general swelling of the integuments most seen in the most dependent parts, and therefore in the legs during the day, and in the face and upper parts of the body on awaking in the morning; it is colorless and retains the impression left by the pressure of the finger, being equally distinct from the elastic swelling of polysarcia, and the crepitating tumidity of emphysema.

380. It may be proper to add, that the inflammatory anasarca is more tense and tender under pressure, than that which arises from debility; and that anasarca of the arm is of more fearful omen even than that of the inferior extremities.

381. I here terminate what I had to say on the diagnosis of *the Diseases of Systems*. I know that my arrangements will not always bear severe scrutiny by the nosologist; but I am also persuaded that they will be of use to the young clinical student, or practitioner, and this object I esteem of greater value than the former.

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* Bright's Reports, vol. i. pp. 67–69.

SECTION II.

THE DIAGNOSIS OF THE DISEASES OF ORGANS.

CHAPTER I.

THE DIAGNOSIS OF THE DISEASES OF THE BRAIN AND SPINAL MARROW.

382. In passing from the diseases of systems to the diseases of organs, I come at once to one of the most important of the human body—the brain and spinal marrow: for it is plain that, however these two portions of the nervous system have been separated in books, they constitute but one in nature, and it would be as correct to separate the different parts of the brain itself. Such an artificial disjunction of the brain and spinal marrow has occasioned great inconvenience, and been the source of many errors. One great disadvantage has arisen from the separation of these two parts of the nervous system in our clinical studies: whilst the brain has received its due degree of attention, the spinal marrow has been, comparatively, neglected.

383. The diseases of the brain consist in arterial, or venous congestion; or in rupture or other destruction of its substance; in the varied effects of that process designated inflammation; in effusion; in hypertrophy, atrophy, &c. The first of these occurs from undue impulse of the arterial blood, as in hypertrophy of the heart; the second from an impediment to the return of the venous blood, as in disease in the left auriculo-ventricular orifice; the third occurs from either of these causes, or from diseases of the vessels within the brain itself. The causes of inflammation are, generally speaking, well known. Those of effusion, independent of inflammation, are more obscure; those of hypertrophy and atrophy more obscure still, but are probably associated with the degree of supply of arterial blood.

384. Congestion tends principally to induce stupor; inflammation to induce delirium; irritation occasions convulsions; the rupture, or destruction of the substance of the brain, paralysis: mere pressure also induces coma or paralysis.

385. Of all the diseases of the human body, those of the brain and spinal marrow are, in their different forms, the most sudden, the most acute, the most insidious, and the most protracted. Amongst the first is apoplexy; amongst the second is acute inflammation; amongst the third, chronic inflammation, tubercles, tumors; and amongst the last, epilepsy, mania, idiotcy. No cases require such acumen, such watchfulness, such decision on the part of the physician.

386. On the other hand, the most marked *symptoms* of disease of the brain and spinal marrow occur, and in still more marked forms, in other diseases, in which there is, in fact, no dangerous structural disease; as in intestinal irritation, exhaustion, hysteria, delirium tremens, &c.

387. The principal and most important of these cases are presented in the following tabular form:

ARRANGEMENT OF THE DISEASES OF THE BRAIN AND SPINAL MARROW.

I. THE SUDDEN.

Apoplexy and Paralysis.

1. *From Congestion:*
    1. *Arterial;*
    2. *Venous.*
2. *From Rupture, with Hæmorrhagy; and*
3. *From Destruction of Texture.*

I. *Of the Tuber Annulare.*

II. *Of the Cerebrum.*

1. *Extensive:*
    1. *Over the Surface.*
    2. *In the Substance of the Hemisphere.*
        1. *Circumscribed;*
        2. *Extending into the Ventricles.*
2. *Topical:*
    1. *In the Radiations of the Corpus Striatum.*
    2. *In the Radiations of the Thalamus.*
    3. *In the Corpora Quadrigemina.*
    4. *At the Roots of various Nerves.*

III. *Of the Cerebellum.*

1. *Of the Middle Lobe.*
2. *Of the Lateral Lobes.*

IV. *Of the Medulla Oblongata.*

V. *Of the Medulla Spinalis.*

1. *Diffused:*

1. *Of the Cervical Portion.*
2. *Of the Dorsal Portion.*
3. *Of the Lumbar Portion.*

2. *Encysted:*

1. *Of the Lateral Column.*
2. *Of the Anterior Column, or Nerves.*
3. *Of the Posterior Column, or Nerves.*

II. THE ACUTE.

Inflammation.

I. *Of the Cerebrum.*

1. *Diffused:* 1. *Of the Arachnoid.*

1. *Effusion of Lymph.*
2. *Effusion of Serum.*
3. *Effusion of Pus.*

2. *Of the Cortical, or*
3. *Of the Medullary Substance;*

1. *Injection.*
2. *Softening; Induration.*
3. *Suppuration.*

2. *Topical.* (*See* I. II. 2.)

II. *Of the Cerebellum.* (I. III.)

III. *Of the Medulla Oblongata.*

IV. *Of the Medulla Spinalis.* (I. V.)

III. THE INSIDIOUS.

I. INFLAMMATION.

I. *Of the Cerebrum.*

Effusion; 1. *Over the Surface;*
2. *At the Base;*
3. *In the Ventricles.*

II. TUBERCLES; ENCEPHALOSIS; ETC.

II. *Of the Medulla Spinalis.*

IV. THE CHRONIC.

I. *Of the Cerebrum.*

INFLAMMATION?

1. *Mania.*
2. *Melancholia.*
3. *Dementia.*
4. *Lethargy.*
5. *Epilepsy.*

II. *Of the Medulla Spinalis?*

1. *Paralysis Agitans.*
2. *Tremor Mercurialis.*

388. From these diseases we are frequently called upon to distinguish some other morbid affections, very different in their nature, but similar in their external characters:

389. From the *sudden diseases* we must distinguish

1. *The coma of hysteria.*
2. *Syncope.*
3. *Asphyxia.*
4. *Deep Intoxication.*
5. *Torpor from cold, &c.*

390. From the *acute diseases* we must distinguish

1. *Fever.*
2. *Intestinal Irritation.*
3. *Exhaustion.*
4. *The Delirium tremens.*
5. *Hysteric delirium, &c.*

391. My readers will readily concede that it is difficult to simplify, without any material omission, such a subject as this. Yet such is my chief object in this part of my work.

I. THE SUDDEN DISEASES.

1. APOPLEXY AND PARALYSIS.

392. I. *The History.* The *causes* of Apoplexy and of Paralysis are exceedingly numerous. They may be arranged in the following manner:

1. *Plethora, Repletion.*
2. *Exhaustion, Inanition, Debility.*
3. *Diseases of the Brain itself.*
4. *Disease of the Vessels within the Head, as Aneurism.*
5. *Disease of the Heart, especially*
    1. *Hypertrophy.*
    2. *Disease of the Valves.*
6. *Disease of the Lungs, Liver, Kidney, &c.*
7. *The various Hæmorrhagies, Dropsies, &c.*

393. Persons of short stature, of a short neck, and general fulness, are certainly most prone to apoplectic attacks; but the tall, and spare, and feeble, are by no means secure from them. Excess in eating; the recumbent posture; muscular efforts; straining; mental emotion; sleep; &c. are also causes of this terrible disease.

394. It is highly important to be aware of the *premonitory Symptoms.* These are—sudden flushings; an unwonted,

perhaps transient, headache, vertigo, a sense of pressure, a sense of confusion, &c. incoherence of mind, delirium, loss of consciousness, of memory, &c. drowsiness; numbness, paralysis, spasm; visual spectra,* noises, &c. sickness; faintishness.

395. II. *The Symptoms.* In detailing the symptoms, I shall endeavor to associate each of their numerous forms with their corresponding organic changes of the encephalon.

396. Now the principal symptoms in Apoplexy are—*stupor* or *coma; paralysis;* and *convulsion:* these may vary in degree, in extent: the *first* seems to be associated with *compression* of the brain, and therefore occurs in mere *congestion* or *fulness* of the vessels, as well as in hæmorrhagy within the brain; paralysis arises from *broken texture,* and varies, in its seat and extent, with those of the organic lesion; convulsion arises from *irritation,* such as that of *inflammation,* of a *tumor,* &c.

397. The *coma* and its *degree* depend upon congestion, or effusion of blood in the cerebral substance: when it is extreme, the countenance is either bloated, or sunk, livid, or pale, according to the period of the disease and the vital powers; the expression is lost; the cheeks and lips distended during expiration; the respiration is stertorous; the pulse is, at first, full and slow, and perhaps irregular, afterwards feebler, and more frequent; the bladder, or the sphincters, may be in a state of paralysis.

398. The *paralysis,* with its *degree* and *seat,* depends on the extent and seat of the organic lesions: these may be arranged in the following manner:

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* The celebrated Lord Peterborough, being engaged in writing, raised his head and beheld a human figure before him; it shortly disappeared, but returned after a time, assuming the same attitude as before. He sent for his medical adviser, was freely bled and purged, and forthwith dismissed the unwelcome intruder, and probably was saved from a fit of apoplexy.

I. *Of the Tuber Annulare.*

399. Extensive lesion of the tuber annulare* induces general paralysis of the muscles and sensibility of all the limbs, and of the senses. In three patients observed by M. Serres,† total immobility was induced by destruction of the tuber annulare. In two others the attack was attended by severe pain, and an invariable disposition to run forwards. In two others there were more absolute insensibility and immobility, loss of sight, and of hearing, and of the taste and smell. When the *middle portion* of the tuber was chiefly affected, there were movements like those of chorea, then the incoherence of drunkenness, and, lastly, complete paralysis. The pupils were either contracted or immovable. In cases in which *one side* of the tuber was alone diseased, the facial nerve of the *opposite* side was affected, the mouth was drawn, and there was a stammering articulation.

II. *Of the Cerebrum.*

1. *Extensive.*

400. Disease extensively diffused in the cerebrum induces a paralytic state of the mental, sentient, and muscular functions.

401. Effusion of blood upon the surface of the brain induces coma.

402. If the effusion into the substance of the brain be extreme, and extended into the ventricles, it induces speedy, if not sudden dissolution; if it be not extreme, yet extending into the ventricles, it is always fatal, though not until some days may have elapsed; if it be confined to the substance, it induces hemiplegia of the *opposite* side of the body, or, according to its situation, paralysis of the upper or lower extremity.

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* This part of the brain has been not inappropriately designated *nodus encephali*, *nœud vital*, &c.

† Anatomie du Cerveau; t. ii, p. 634.

2. *Topical.*

403. When the effusion or disease is confined to a particular part of the brain, particular effects have been observed:

404. 1. Effusion into the space occupied by the radiations of the corpus striatum, induces paralysis of the *inferior* extremity of the *opposite* side.

405. 2. Effusion into the thalamus induces paralysis of the *opposite, superior* extremity.

406. 3. Effusion into the tubercula quadrigemina is said, by M. Serres,* to induce strange movements, similar to those of chorea.

407. 4. In order to detect disease affecting the roots of the various nerves, it is essential to know their distribution and physiology.† Some remarks will be made on this subject in a subsequent chapter. It is here only necessary to state that, having clearly ascertained the nerve and function paralysed, we have only to determine, by careful examination, and inquiry into the symptoms, whether the disease be seated within or without the cranium.

III. *Of the Cerebellum.*

408. Disease of a lateral lobe of the cerebellum induces paralysis of the *opposite* side, and chiefly of the *lower* extremity.

409. Disease of the *middle* lobe of the cerebellum is denoted by erection of the penis.

IV. *Of the Medulla Oblongata.*

410. Disease of the medulla oblongata induces paralysis of the respiratory muscles, and consequently, when complete, instant death.‡

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* Anatomie du Cerveau; t. ii, p. 646, &c.

† See the account of the most splendid discovery in physiology within the last century, entitled "The Nervous System;" by Charles Bell, F. R. S., 1830.

‡ Mr. Kiernau has preserved the parts of the brain in a singularly interesting case: in one hemisphere of the cerebrum, there was a cicatrix denoting an attack

V. *Of the Medulla Spinalis.*

1. *Diffused.*

411. Sudden lesion of the spinal marrow paralyzes all the parts situated below that principally affected. Disease of the cervical portion of the spinal marrow induces asphyxia, the more promptly as it is situated nearer the medulla oblongata. Disease of the spinal marrow situated lower down induces paralysis of the superior and inferior extremities, of the bladder, and of the sphincters. Disease of the lumbar portion of the spinal marrow is confined, in its effects, to paralysis of the lower limbs, the bladder, and the sphincters.

2. *Encysted.*

412. Disease of the spinal marrow, when encysted, and strictly confined to one or more parts, induces peculiar effects:

413. That of the *lateral* columns induces paralysis of the *same* side;

414. That of the *anterior* columns, or of the nerves derived from them, induces paralysis of the *movements* only;

415. That of the *posterior* columns annihilates the *sensations.*

416. It remains for me briefly to notice the source of *convulsions*, as a symptom in Apoplexy. They usually arise from a less degree of lesion than that which induces paralysis; they do not arise from lesions of the *cerebrum* or *cerebellum*, lesion of the first of which is marked by coma and paralysis, of the second by paralysis only; but from those of the

1. *Tuber Annulare.*
2. *Tubercula Quadrigemina.*
3. *Medulla Oblongata.*
4. *Medulla Spinalis.*

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of hemiplegia experienced three years before, from which recovery took place; in the fourth ventricle, a clot of blood was found, which, from its pressure on the upper part of the medulla oblongata, induced instantaneous dissolution.

417. Lesions of the *two former* induce convulsions of the muscles of the *opposite* side; those of the *two latter*, those of the same side.*

418. It will be obvious how much the occurrence of convulsions must assist us in our diagnosis of the *seat* of the morbid lesion.

419. III. *The Complications* of Apoplexy are extremely numerous. I have already enumerated, §§ 392, 396, such as act as *causes*, and such as are to be regarded merely as *symptoms*. But there are other complications which occur in this disease: they are principally affections of

1. *The Heart.*
2. *The Lungs.*
3. *The Stomach.*
4. *The Intestines.*
5. *The Bladder.*
6. *The Sphincters.*

420. The beat of the heart becomes slow and irregular. The bronchia become clogged with mucus. There is sometimes vomiting as a premonitory symptom; afterwards there is torpor of the stomach and of the bowels; and there is frequently retention of urine. Eventually the sphincters are relaxed.

421. IV. *The Effects of Remedies.* In the stage antecedent to an attack of apoplexy, there is an extraordinary degree of tolerance of the loss of blood. After the attack, the loss of blood is still well borne at first, but we have very shortly to support the powers. I have just noticed, § 420, the peculiar torpor of the stomach and bowels; this is observed under the influence of antimonials and purgatives.

422. V. *The Morbid Anatomy* of Apoplexy, besides that which may be considered as amongst its *causes*, § 392, consists of

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* Serres, t. ii, p. 637. Recherches du Système Nerveux; par P. Flourens, Paris, 1824, p. 119.

1. *Arterial and Venous Congestion.*
2. *Rupture with Hæmorrhagy.*
3. *Sudden Changes, in Cases of Effusion, Softening, Abscess, Tumor, &c.*

II. THE ACUTE DISEASES.

INFLAMMATION.

I. and II. *Of the Brain and Cerebellum.*

423. I. *The History.* The causes of Inflammation of the Brain are frequently very obscure: mechanical violence; exposure to the sun-beams; excesses in wine or spirits; anxiety and distress of mind, are amongst the most obvious; but the most usual is, probably, some constitutional derangement. Encephalitis is frequently the complication or sequela of some other disease, and especially of

1. *Fever;*
2. *Scarlatina; Rubeola; Erysipelas;*
3. *Rheumatism; Arthritis;*
4. *Disease of the Kidney; Suppression of Urine;*
5. *Dropsy; &c.*

424. II. *The Symptoms.* In detailing the symptoms it will be necessary to attend to the *stages*, and the *seat* of the disease. The former may be considered as

1. *That of Excitement.*
2. *That of Oppression.*

The latter may be

1. *The Arachnoid.*
2. *The Cortical, or*
3. *The Medullary Part, or*
4. *The Base, of the Brain.*

425. I. The very incipient stage of encephalitis is frequently

denoted by *one* symptom only, viz. unwonted *pain*. This is not always of the acute kind; but sometimes it is excruciating.

426. With this symptom there are an undue sensibility of the eye to light, of the ear to sound, and perhaps of the skin to touch; spontaneous flashes of light, and noises in the head; wakefulness; moroseness; slight, perhaps transient, delirium; pains of the limbs; vomiting.

427. There is sometimes a singular change in the countenance, or an expression of astonishment; the eyes are intently fixed, the conjunctivæ are suffused, the cornea of a vivid brightness; the pupils contracted; and there may be strabismus. Indeed there is no source of diagnosis of such importance as the countenance, which is the real index of the state of the mental functions. The respiration is sometimes rather irregular, and the pulse unequally frequent in various parts of a minute.

428. 2. The second period, or the stage of oppression *reverses* these appearances, and adds others of a very peculiar character: the morbid acuteness of the sensations passes into blindness, deafness; the delirium into stupor; the wakefulness into drowsiness, and gradually into coma; convulsive affections are still more frequent, and various kinds of paralysis supervene.

429. The expression of the countenance changes from the vivid to the dull, vacant, or idiotic; the eye loses its lustre, and there is an unfixed, unmeaning stare, with dilated pupils and strabismus; the muscles of the face may be either partially convulsed, or paralytic; the articulation, both as a muscular and mental function, may be defective, the deglutition, imperfect; there are various spasmodic, convulsive, or paralytic affections of the limbs. The respiration becomes irregular, suspirious, and eventually perhaps stertorous; the pulse becomes frequent; the bladder is often distended, with, or without, relaxation of the sphincters.

430. 3. In regard to the *seat* of encephalitis, it is said that inflammation of the *arachnoid* of the *surface*, and of the *cortical substance*, is more marked by *delirium;* and that of the

base of the brain, by *coma*,* and by retraction of the head. In regard to affections of the *medullary* substance, they may be deduced from what has been detailed §§ 399—410, and need not be repeated here. I shall merely add a short extract from the admirable work of M. Lallemand:† "Ainsi, en dernière analyse, dans l'inflammation de l'arachnoïde, *symptômes spasmodiques sans paralysie;* dans l'hémorrhagie, *paralysie subite, sans symptômes spasmodiques;* dans l'inflammation du cerveau, *symptômes spasmodiques, paralysie lente et progressive, marche inégale et intermittente.*"

431. III. *The Effects of Remedies.* Encephalitis, in its early but fully formed stage, presents the most remarkable instance of the tolerance of loss of blood; and this, in its turn, the most remarkable diagnostic of encephalitis.

432. IV. *The Morbid Anatomy* consists, in arachnitis, of

1. *Injection,*
2. *Effusion of Lymph,*
3. *Effusion of Serum,*
4. *Effusion of Pus;*

in inflammation of the *substance* of the brain, of

1. *Injection,*
2. *Softening, Induration,*
3. *Abscess.*

III. and IV. *Of the Medulla Oblongata and Medulla Spinalis.*

433. I. *The History.* This affection arises principally from external violence or injury; from exposure to damp and cold,

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* Recherches de l'Arachnitis; par Parent-Duchatelet et L. Martinet; 204; 229; 551.

† Recherches sur l' Encephale, t. i, p. 278.

as in carelessly lying upon the damp grass, and other similar causes.

434. II. *The Symptoms* are—1. *pain* in the course of the spine, sometimes severe, sometimes obscure, distinguished by not being augmented by moderate muscular efforts, but by gentle percussion, performed in the same manner as in the diagnosis of thoracic diseases, and by its duration; 2. opisthotonic *spasm* of the muscles of the back, especially observed when the membranes are the seat of the disease.

435. The further symptoms are paralysis, generally *paraplegia*, without symptoms of encephalic disease. This paralysis varies with the seat of the inflammation: when the higher parts of the spinal marrow are affected, the acts of respiration are impaired, with paralysis of both upper and lower extremities; when the seat of disease is in the dorsal or lumbar portion of the spinal marrow, the lower extremities alone are paralyzed: the functions of the stomach and bowels are interrupted; and the secretions of the kidney and of the mucous membrane of the bladder are morbid, and the power of the bladder is annihilated: at first the sensations, or the movements, alone, may be paralyzed; eventually, with general paraplegia, the power of the sphincters is lost.*

436. III. *The Morbid Anatomy* consists in arachnitis, of

Effusion of Serum, Lymph, or Pus;

and in inflammation of the *substance* of the spinal marrow, of

1. *Injection.*
2. *Softening; or Induration.*
3. *Abscess.*

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* Some years ago I attended an interesting case of this kind with Mr. Alcock. The patient was also seen by Dr. Babington. On examination, the medulla spinalis was found in a state of complete and extensive softening. The patient had been exposed to cold in a boat.

III. THE INSIDIOUS DISEASES.

I. INFLAMMATION.

II. TUBERCLES.

III. ENCEPHALOSIS, ETC.

IV. CARIES.

I. *Of the Brain.*

437. *The History and Symptoms.* All these affections are so insidious, that with, or without, previous general indisposition, with, or without, local pain in the head, more or less continued, there may be sudden *convulsion*, or *paralysis; stupor*, or *imbecility*. These symptoms are varied in character, seat, and intensity, in different instances, according to the part of the encephalon principally affected: the two former belong to abscess, softening, tubercles, or tumors; the two latter, to effusion of serum, into the *ventricles*, upon the *surface*, or at the *base* of the brain.

438. In these various circumstances, the expression of the countenance, the direction of the eyes, the articulation, the deglutition, the limbs, the sphincters; the senses, the sensations; the different faculties of the mind; the memory of persons, things, or words, &c. are equally variously, and doubtless appropriately, affected.*

II. *Of the Spinal Marrow.*

439. *The History and Symptoms.* The insidious is the most usual form of inflammation or disease of the spinal mar-

* In one sadly interesting case, the finest mind became confused, and at length complete imbecility took place. The patient was about forty. Harassing cares seemed to have occasioned his disease. An immense effusion of serum distended the ventricles.

row. The symptoms are pain, cramp, paralytic weakness, benumbed sensation, of the superior or inferior extremities. These symptoms may occur singly, or combined; in one limb, or in more than one; they usually assume the *paraplegic* form. Sometimes a tender part is discovered in some region of the spinal marrow, by percussion. Sometimes there is a cord-like sensation across the epigastrium. The bladder, or the sphincters, may lose their power, and there may be retention of urine, or involuntary discharges, singly, or combined. We should be aware that there may be *Caries*,—and frequently examine the spine.

IV. THE CHRONIC AFFECTIONS.

1. *Of the Cerebrum.*

INFLAMMATION?

1. *Mania.*
2. *Melancholia.*
3. *Dementia.*
4. *Lethargy.*
5. *Epilepsia.*

440. The diseases to be noticed in this place are amongst the most afflictive and obscure to which man is subject. The designations are those of *symptoms* merely; the organic lesions on which those symptoms depend, are still almost unknown, but probably consist in a particular condition of the minute and capillary circulations. I shall do little more, in this place, than explain the use of terms, the *diagnosis*, generally speaking, being obvious enough.

Mania, &c.

441. I. *The History.* The principal *causes* of mania are mental excitement, and exhaustion, acting in conjunction with hereditary predisposition. Mania is frequently the result of the arduous duties of our prime ministers, and of the anxieties of the stock-exchange; it is also frequently a puerperal disease.

442. II. *The Symptoms.* Mania consists in aberrations of mind too numerous and too various for description: they are each distinguished by ideas at variance with obvious truth. The patient may quietly wander, generally, or upon some particular point merely, as in *monomania;* or he may be furious, and this independently of fever or other constitutional derangement. The eye, and the general expression of the countenance, the general demeanor, the loquacity of the patient, distinguish the various forms and shades of this disease.

443. That form of mania designated *melancholia*, is distinguished by an opposite condition of the countenance, and attitude, by taciturnity, and by the peculiar cast of the ideas. It is only necessary to glance the eye upon the two patients, to distinguish these dissimilar mental maladies.

444. In one form of this sad affection there is a *monomaniacal* disposition to suicide:* in a second, there is the same propensity to destroy others.

445. III. *The Morbid Anatomy.* According to MM. Delaye and Foville, the *cortical* substance is principally affected in mania: there is injection, with a red or deep brown color, either generally, or here and there, and with softness, so that portions of the brain are raised with the membranes when these are detached; the membranes are opaque and covered with serum, lymph, or pus; the bones are found, in some cases, thickened and hardened.

446. MM. Bouchet and Cazauvieilh† agree with MM. Delaye and Foville, in their opinion of the organic origin of mania; and add the important remark, that, as mania consists in acute or chronic inflammation seated in the cortical substance, epilepsy consists of chronic inflammation of the white or medullary part of the brain.

447. *Dementia and Lethargy*, which offer no difficulty in the diagnosis, seem alike to arise from the effects of chronic inflammation, and probably differ only in the *seat* of the mor-

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* Du Suicide et de l'Hypochondrie; par M. Falret.

† De l'Epilepsie, &c. p. 45.

bid lesion; in the former the effusion being chiefly within the ventricles of the brain, in the latter, upon its surface.

II. *Of the Medulla Spinalis?*

I. THE PARALYSIS AGITANS.

448. The Paralysis Agitans has been described by Mr. Parkinson under the designation of the 'shaking palsy.'

449. I. *The History.* The first symptoms of this most *insidious* disease is weakness and tremor, of the head, for instance, of the hand, &c. In about a year, the other hand, or a lower extremity, is affected, or the patient loses his balance in walking. Generally no accident or other *cause* can be assigned.

450. II. *The Symptoms.* There is perpetual tremor, even when the part is supported: the head, the hand, the leg, are moved incessantly; reading and writing become impossible, and the patient cannot guide his hand to his mouth; at length the patient loses his balance in walking, and there is a constant tendency to fall forwards, and, in order to avoid this, to run or move with a quicker pace, and on the toes.

451. At a later period the tremor continues during sleep even, augmenting until the patient awakes. There is increased weakness, the trunk is bent forwards, the upright position can no longer be supported. The articulation becomes indistinct, mastication and swallowing imperfect. The bowels are all along torpid, then obstinate; at last the urine and fæces are passed involuntarily. In the last stage of all there is slight delirium or lethargy.

452. III. *The Morbid Anatomy* is unknown. The symptoms have, however, in several particulars, a marked resemblance to the effects observed by M. Serres, of diseases of the *tuber annulare*, and of the *tubercula quadrigemina*.*

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* Anatomie du Cerveau, t. ii, p. 634, 642, & seq.

II. TREMOR MERCURIALIS.

453. I. *The History.* This disease affects workers in mercury, chiefly those occupied in silvering mirrors.

454. II. *The Symptoms* are, at first, paralytic tremor and debility, and perhaps ptyalism; afterwards convulsive agitation of the limbs whenever they are moved. The articulation becomes imperfect. The hands are so agitated, that a partly filled cup cannot be conveyed to the mouth* without spilling the liquid. On attempting to walk, the limbs dance and perform irregular movements. Whilst sitting still, the patient may remain free from chorea; but on every exertion of the volition, and on every occasion of mental agitation, the irregular movements are renewed. The sleep is disturbed: the patient awakes alarmed by terrific dreams; there are nervousness and debility; the bowels are constipated.

455. III. *The Morbid Anatomy* is unknown. I suspect this and the former affection are connected with the peculiar function noticed in the note, p. 228.

456. I must only briefly revert to the subjects enumerated, §§ 389, 390, to recommend to my young reader the careful study of the forms of those diseases which resemble respectively the *sudden and acute* diseases of the encephalon. From the latter, and from the chronic diseases, it will be necessary to distinguish the *cephalodyne* of *Ague*, of *Exhaustion*, of *Chlorosis*, of *Hysteria*, &c. §§ 115; 200; 238; 246. From diseases of the spinal marrow, we must carefully distinguish those of the *kidney* and those of the *lumbar region* generally, subjects to be treated of hereafter.

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* In a case detailed in the Philosophical Transactions for 1665, the patient "could not with both hands carry a glass half full of wine to his mouth without spilling it, though he loved it too well to throw it away."

CHAPTER II.

THE DIAGNOSIS OF THE DISEASES OF THE ORGANS OF RESPIRATION.

457. The organs of respiration may be naturally divided into the larynx, the trachea, the bronchia; the air-cells; the cellular substance of the lungs; and the pleura. Their diseases are as naturally divided into the acute, the chronic, and the insidious.

458. In the following views of the diagnosis of these diseases, I purpose to confine myself, as usual, to questions of practical value and scientific interest, and shall discard such as are mere matters of curiosity or over-refinement, of which many instances might be adduced in regard to our present subject. It must be confessed, indeed, that it is difficult to include all that is really useful, and to exclude all that but encumbers the study of this important class of diseases.

ARRANGEMENT OF THE DISEASES OF THE ORGANS OF RESPIRATION.

I. THE ACUTE.

I. Laryngitis and Tracheitis.

1. *Injection.* 2. *Tumidity.* 3. *Exudation.*

II. Bronchitis.

1. *Redness.* 2. *Slight thickening.*
3. *Augmented and altered Secretion.*

III. Pneumonia.

1. *Diffused.*
2. *Lobular.*
3. *Central.*

1. *Congestion.*
2. *Hepatization.*
3. *Purulent Infiltration.*
4. *Abscess.*
5. *Œdema.*

IV. Hæmorrhagy.

I. BRONCHIAL HÆMORRHAGY.

II. PULMONARY HÆMORRHAGY OR APOPLEXY.

V. Pleuritis.

1. *Of One Pleura.*
2. *Of Both Pleura.*
3. *Partial.*
4. *Pleura-pneumonia.*

1. *False Membranes.*
2. *Serous, Puriform, Hæmorrhagic, Effusion.*

VI. Gangrene (diffused.)

II. THE CHRONIC.

I. Laryngitis and Tracheitis.

II. Bronchitis.

1. *Mucous; Dilatation of the Bronchia.*
2. *Pituitous.*
3. *Dry; Emphysema; Asthma.*
4. *Symptomatic.*

III. Pneumonia.

IV. Pleuritis.

1. *Serous, flocculent, or puriform Effusion.*
2. *Effusion, with Dilatation of the Chest.*
3. *Absorption, with Contraction of the Chest.*
4. *Displacement of the Heart.*

V. Gangrene (circumscribed.)

VI. Emphysema.

1. *Vesicular.* 2. *Interlobular.*

VII. Asthma.

VIII. Œdema.

IX. Hydrothorax.

1. *Idiopathic.* 2. *Symptomatic.*

X. Pneumothorax.

III. THE INSIDIOUS.

I. Ulceration of the Larynx, Trachea, or Bronchia.

II. Tubercles.

I. 1. *Of the Lungs.*
2. *Of the Pleura.*
II. *Complications.*

III. Melanosis.

IV. Encephalosis.

V. Scirrhus.

VI. Cysts, Hydatids, etc.

VII. Symptomatic affections.

I. THE ACUTE DISEASES.

1. LARYNGITIS AND TRACHEITIS.

459. The profession is chiefly indebted for the knowledge of this disease, as it occurs in *adults*, to the late Dr. Baillie,* and to Dr. Farre.†

460. I. *The History.* This perilous affection comes on rather insidiously, with the feelings and appearances of slight sore-throat, from exposure to wet and cold.

461. II. *The Symptoms.* With a blush of information about the fauces, there is, very soon, a sense of stricture about the larynx, and a sonorous yet hoarse respiration, and cough, the inspirations being long and difficult; and, after another short interval, there is increased dyspnœa, with the imminent danger of suffocation, restlessness, great distress, starting of the eyes, and perhaps delirium; with these symptoms, referable to the larynx or trachea, there are a small pulse, paleness of the face, dilated pupils, and obvious danger of sinking of

* See the Transactions of a Society for the Improvement of Med. and Chir. Knowledge, vol. iii, p. 275; Works, by Wardrop, vol. ii, p. 54.

† Med. Chir. Trans. vol. iii, p. 84, and p. 323.

the powers of life. When the disease is seated about the rima glottidis, there is dysphagia; when lower down in the larynx, there is still hoarseness or loss of voice; symptoms which are absent in Tracheitis, when distinct from affection of the larynx. Generally the patient can lay his finger on the seat of the stricture and of dyspnœa.*

462. III. *The Morbid Anatomy.* There are injection and tumidity of the mucous membrane lining the larynx, or trachea, or both, with the exudation of puriform mucus, or of coagulable lymph; and the rima glottidis, the larynx, or the trachea, is proportionally obstructed.

II. BRONCHITIS.

463. I. *The History.* This disease usually succeeds to exposure to damp and cold. There is generally, at first, a state of coryza affecting the eyes and nostrils.

464. II. *The Symptoms.* In the *mucous* form of the disease, there is a sense of irritation about the larynx and bronchia, with a dry, harsh cough; afterwards there is considerable expectoration, raised by fits of coughing; this is at first pituitous, sometimes mingled with black pulmonary matter; and afterwards, still more copious, viscid, opaque, yellowish, or greenish, and perhaps striated with blood; there is pain more or less diffused over the chest.

465. The thorax sounds well on percussion.

466. The degree and extent of the disease are readily ascertained by the stethoscope, being denoted by the kind and diffusion of the bronchial rattles, which pass from the sonorous to the mucous, and by the temporary diminution or partial sus-

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* Of the three cases given by Dr. Baillie, two occurred in the persons of eminent physicians, viz. Dr. David Pitcairn and Sir John Macnamara Hayes. Dr. Pitcairn "had an uneasy feeling in the larynx, and wrote on a piece of paper that his complaint was croup." Dr. Farre's patient answered his inquiry respecting the seat of his suffering, "by putting his finger on the superior part of the thyroid cartilage."

pension of the respiratory murmur, by the obstruction of a bronchial branch.

467. III. *Varieties.* Besides the ordinary forms of acute bronchitis, some writers, in their fondness for subdivisions, have enumerated the following varieties:

1. *The Pituitous.*
2. *The Dry.*
3. *The Suffocating.*

468. The first and second are observed at the commencement and termination of ordinary bronchitis, and are therefore *stages* rather than distinct forms of disease; and the last occurs from the great extent of the disease and the accumulation of the mucous secretion, especially, but not exclusively, in infants, and in old age.

469. IV. There is far greater suceptibility to the effects of blood-letting in bronchitis than in laryngitis or the other diseases of this subsection.

470. V. *The Morbid Anatomy* consists in redness, and slight thickening of the mucous membrane of the bronchia, with accumulation of its altered secretions.

III. PNEUMONIA.

471. I. *The History.* The principal *cause* of pneumonia, like that of laryngitis, bronchitis, &c. is exposure to wet and cold. Pneumonia is very obscure in its *first* stage.

472. II. *The Symptoms* are obtuse, deep-seated pain, labored or frequent respiration, and cough, and a *peculiar* glutinous expectoration, highly characteristic: this expectoration is frequently such that the vessel in which it is contained may be inverted without its falling out; its color is various, but frequently that of the *rust of iron.*

473. But the chief sources of the diagnosis are the stethoscope and percussion: 1. The *crepitant* rattle is the invariable pathognomonic sign of the period of *congestion;* its diffusion

marks that of the disease; the respiration is still heard; the chest still sounds well; 2. In the stage of *hepatization*, there is neither rattle, nor respiratory murmur; there may be bronchophony when the root, or the upper, or any exterior portion of the lung is affected; and with this sign there are always bronchial respiration and cough; the sound on percussion is dull; 3. A mucous rattle marks the flow of pus into the bronchia, in the case of suppuration.

474. III. *The Complications.* The brain and its membranes are frequently congested in pneumonia; and there may be delirium or coma; the latter symptom frequently leads to a fatal termination in persons of advanced age.

475. IV. *The Morbid Anatomy* consists of

1. *Congestion.*
2. *Hepatization.*
3. *Purulent Infiltration.*
4. *Abscess.*

476. The disease may be circumscribed or diffused: it is frequently confined to a lobe, to the root of the lung, &c.

477. During the *resolution* of pneumonia the symptoms cease in an inverted order: the sound yielded on percussion, and, first, the crepitant rattle, and then the vesicular respiration, return.

478. If *abscess* form, which is rare, and this abscess open into the bronchia, there are pectoriloquism, cavernous respiration, cough, and rattle, and perhaps the 'souffle voilé.'

479. Sometimes pneumonia does not terminate by resolution, but gradually yields to a state of *œdema.* The symptoms are then dyspnœa, obscure respiration, and a subcrepitant rattle.

IV. HÆMORRHAGY.

I. BRONCHIAL HÆMORRHAGY.

480. I. *The History.* The *causes* of bronchial hæmor-

rhagy are muscular efforts,* especially of the voice,† and of the respiration; other causes assigned are the suppression of an habitual hæmorrhagy, of the catamenia, &c.

481. II. *The Symptoms.* Bronchial hæmorrhagy is denoted by the rejection of a moderate quantity of spumous and sometimes coagulated blood. The chest sounds well; there is a *mucous* rattle.

482. III. *The Morbid Anatomy.* The bronchia are found to contain more or less of blood, and to be tinged by its imbibition.

II. PULMONARY HÆMORRHAGY OR APOPLEXY.

483. I. *The History.* The causes of pulmonary hæmorrhagy are the same, generally, as those of bronchial hæmorrhagy. The former is more frequently associated with disease of the heart; the latter with tubercles in the lungs. Exposure to excessive heat or cold is a frequent cause of the immediate attack. But this disease frequently occurs in the most sudden and unexpected manner.

484. II. *The Symptoms* are oppression at the chest, cough with much irritation of the larynx, and the rejection of a considerable, perhaps an enormous, quantity of florid, spumous, or coagulated blood, with a frequent vibrating pulse, and the 'bruit de soufflet' of the heart and arteries. The countenance is either flushed, or pale; the skin is natural, the feet may become cold.

485. The stethoscope affords *two* important signs of pulmonary hæmorrhagy: the *first* is the absence of respiration in some part of the chest; the *second*, a *crepitant* rattle surrounding this part.

486. III. *The Morbid Anatomy* of pulmonary hæmorrhagy consists in induration of the lung. This induration is as great

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* The convulsions of epilepsy often fill the mouth with bloody froth, one source of which seems to be the bronchia.

† It is said that Talma usually experienced a bronchial hæmorrhagy after performing "Les Fureurs d'Oreste."

as that of the hepatization of pneumonia; but it is usually more partial and more distinctly and abruptly circumscribed; and it is uniformly of the deep hue of venous blood.

V. PLEURITIS.

487. I. *The History.* Pleuritis, in its acute form, usually occurs rather abruptly, from exposure to wet and cold. The very first symptoms are pain and a checked respiration.

488. II. *The Symptoms.* The pain of pleuritis is usually distinctly fixed to a spot denoting the seat of the inflammation. It is produced or augmented by a free inspiration; and it induces modifications in the movements of respiration which are highly peculiar and characteristic; the thorax, the affected side, or the part, of the thorax, is unmoved, the respiration being either diaphragmatic or only partially thoracic.*

489. As the usual speedy effect of pleuritis is effusion, there is a dulness or the entire absence of sound on percussion, and there is the diminution of respiration under the ear or stethoscope: the degree of effusion is measured by the degree and the diffusion of these two physical signs, which are usually greater than in pneumonia: there is another stethoscopic sign of effusion, in ægophony, which is heard when the quantity of the effusion is moderate, varying in its situation with that of the upper thinner layer of the fluid, and consequently with the position of the patient.

490. In the few cases in which there is no effusion, these stethoscopic signs are absent.

491. III. *The Varieties.* Pleuritis may exist

1. *In one, or*
2. *In both Pleural Sacs, or*
3. *In one Part only, as*

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* I have frequently been able to detect the side, or the part, affected, by watching the movements of the chest in respiration, and especially in a deep inspiration.

1. *Between the Lung and Diaphragm,*
2. *Between the Pulmonary Lobes,* &c.

4. *With Pneumonia.*

492. When one side of the chest is affected, the pain and other symptoms are confined to that side; when both sides are affected, percussion and the ear discover the want of sound, and of respiration, equally on both sides.

493. In partial pleuritis, the seat of the pain and the absence of equal movement in respiration, combined with dulness of sound on percussion and want of respiration under the ear or the stethoscope, denote the particular seat of the disease. Diaphragmatic pleuritis is denoted by a thoracic respiration and augmented pain on calling the diaphragm into play. Partial pleuritis is denoted by absence of sound and respiration, preceded by acute pleuritic pain. Pleuro-pneumonia unites the symptoms of pleuritic and pneumonic inflammation.

494. IV. In early, yet fully formed, pleuritis, there is extreme tolerance of loss of blood.

495. V. *The Morbid Anatomy* consists of the effusion

1. *Of Organizable Lymph.*
2. *Of Serous, Puriform, or Sanguineous Fluid.*

496. From pleuritis it is highly important to distinguish the different forms of *pleurodyne:* these are

1. *Dyspeptic;*
2. *Chlorotic;*
3. *Hysteric;*
4. *Rheumatic,* &c.

497. The diagnosis is founded upon the history, and general symptoms of these affections respectively; and upon the absence of those of pleuritis, and of its stethoscopic signs. My young reader may refer to §§ 228; 238; 245; 295; &c.

VI. GANGRENE (DIFFUSED.)

498. I. *The History.* Gangrene of the lungs is either *diffused*, or *circumscribed.* In the former case it is a disease of acute form and rapid progress. It is of rare occurrence, and generally allied to other gangrenous diseases rather than to inflammation.

499. II. *The Symptoms* are extreme general debility and sinking, with great oppression and a frequent feeble pulse; there is a crepitant rattle, with a peculiar and even pathognomonic expectoration of a gangrenous fœtor and dingy green color; the rattle rapidly augments, and the patient dies from accumulation in the bronchia and sinking of the powers.

500. III. *The Morbid Anatomy.* The substance of the lung is congested, easily torn, of the various, greenish, brownish, or blackish, hues, and excessive fœtor, of other parts in a state of gangrene.

II. THE CHRONIC DISEASES.

I. LARYNGITIS OR TRACHEITIS.

501. I. *The History.* Chronic Laryngitis is sometimes insidious, sometimes the sequel of laryngitis in the acute form.

502. II. *The Symptoms* in Chronic Laryngitis are difficult and hoarse or sonorous respiration, a croupy cough, and dysphagia; there is a sense of stricture or of soreness distinctly referred to the larynx; and there is, at length, the remarkable symptom of inability of snuffing up the nostrils or of drawing the alæ nasi together by quick inspiration.*

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* The rationale of this symptom is given in a paper by the author, published in the Med. Chir. Trans. part x, p. 166.

503. Tracheitis is distinguished by the absence of dysphagia, and by the seat of stricture and uneasiness.

504. III. *The Diagnosis.* It is important to bear in mind that Chronic Laryngitis or Tracheitis may be supposed to exist when, in fact, the case is *Hysteria*, or the trachea is compressed by

1. *A Tumor,*
2. *An Abscess, or*
3. *An Aneurysm!*

505. The young physician being aware of the danger of this mistake, will seek the diagnosis in the symptoms peculiar to these diseases.

506. IV. *The Morbid Anatomy* consists in thickening of the mucous membrane lining the larynx or trachea, sometimes with effusion from its surface, or œdema of the subjacent cellular substance. There is frequently increased bronchial secretion, or pulmonary œdema.

II. BRONCHITIS.

507. I. *The History.* Chronic Bronchitis is usually the consequence or issue of an acute attack of this disease. It may long exist, with, or without fever. It is a frequent disease of old age; sometimes its simple effect.

508. II. *The Symptoms* are those of ordinary bronchitis protracted: there is the absence of the pectoriloquism and cavernous respiration of phthisis; the sound of the chest and of the respiration is unimpaired. There is a degree of pallor, and frequently weakness and emaciation; dyspnœa is easily induced by exertion, or there may be confirmed dyspnœa.

509. The expectoration is very various, in different cases and at different periods of the same: generally copious, it is sometimes so much and so suddenly so as to lead to the erroneous idea of a ruptured abscess; it is frequently opaque, and greenish from the admixture of black pulmonary matter;

occasionally it is fœtid, and more of a gangrenous odor; it is sometimes mixed with blood.

510. III. *The Varieties.* Besides the common or mucous form of Chronic Bronchitis, there are several others to which it is necessary to advert briefly in this place: these are

1. *The Pituitous.*
2. *The Dry.*
3. *That with Dilated Bronchia.*
4. *That with Dilated Air-cells, or Emphysema.*
5. *The Symptomatic.*

511. The first of these is distinguished by the peculiar expectoration; the second by the want of it, with peculiar sonorous rattles; the third by bronchial respiration and bronchophony; the symptoms of emphysema will be detailed hereafter.

512. The sympathetic forms are traceable to other diseases, of the *lungs*, of the *liver*, of the *heart*, &c.

513. Besides these forms of bronchitis, there are others still, which I need but enumerate in this place: they are those attended with

1. *Polypi.*
2. *Ulcers.*
3. *Diseased Cartilages.*
4. *Diseased Bronchial Glands.*

514. IV. *The Morbid Anatomy* is similar to that of acute bronchitis: the bronchia and the air-cells are sometimes dilated.

III. PNEUMONIA.

515. *The History.* Chronic Pneumonia is rare, and generally a sequela of the acute form of the disease, or of pulmonary hæmorrhagy.

516. *The Symptoms.* It is marked by the same symptoms and signs as the acute pneumonia.

IV. PLEURITIS.

517. I. *The History.* Chronic Pleuritis, far more common than chronic pneumonia, occurs in feeble or cachectic subjects, and may possess its chronic form from the beginning; or it may be the sequela of acute pleuritis.

518. II. *The Symptoms.* In Chronic Pleuritis the symptoms are generally such as denote a profuse effusion: there is the want of sound on percussion and of respiration under the ear or stethoscope; pleuritic pain and ægophony are rare; but, on the other hand, an enlargement of the side of the thorax is not uncommon. There are fever, emaciation, and cough, with mucous, or even puriform expectoration.

519. III. In the course of this affection, when it proves fatal, the following *Complications* occur:

1. *Congestion or Effusion within the Head.*
2. *Anasarca; especially of the Arm, and Leg, of the side affected.*

520. IV. *Varieties.* In the case which has been described there is, when the effusion is very great, *dilatation of the thorax;* in other instances, the effusion is slowly absorbed, but the lung, bound down by strong layers of lymph, does not expand, *the thorax is*, therefore, *contracted:* both these states are determined by the eye, and by admeasurements. In a third case, the *heart* is *pushed* or *drawn* from its natural position.

521. V. *The Morbid Anatomy* is similar to that of acute pleuritis: the effusion is generally more abundant; frequently flocculent, or puriform; and sometimes of a slightly disagreeable odor. In contraction of the chest, the lung is bound down by lymph, and carnified.

V. GANGRENE (CIRCUMSCRIBED).

522. I. *The History.* Diffused gangrene is rapid, the circumscribed very slow in its course.

523. II. *The Symptoms.* The peculiar greenish or brownish expectoration of gangrenous odor, is the pathognomonic symptom. With it there are, pectoriloquism, and cavernous respiration, rattle, and cough.

524. III. *The Morbid Anatomy* is similar to that of diffused gangrene: it is circumscribed, sometimes affecting a tuberculous cavity; sometimes involving and destroying the pleura, and opening a communication with its cavity.

VI. EMPHYSEMA.

1. *Vesicular Emphysema.*

525. I. *The History.* This disease is most frequently the *issue* of repeated attacks of that form of *bronchitis*, termed the *dry;* it also frequently *constitutes* the disease termed *asthma;* and in its turn, it frequently *causes* hypertrophy or dilatation *of the heart.*

526. II. *The Symptoms.* Emphysema is the most frequent of the varied forms of disease to which the designation of *asthma* has been given: its principal symptom is, as that name imports, great dyspnœa; this dyspnœa recurs in paroxysms and becomes more and more habitual or permanent; there is a dull-sounding cough, at first dry, afterwards with expectoration; the chest is large and elevated; the complexion becomes dingy, the lips, livid.

527. These symptoms may well lead to the suspicion of emphysema; the pathognomonic *signs* are afforded by percussion and auscultation: the chest sounds remarkably well; the respiration is scarcely audible; there is sometimes a crepitant rattle, not constant, but during short spaces of time, which differs from that of pneumonia by communicating the idea of dryness.

528. Vesicular Emphysema may be extended to both lungs, or confined to one.

529. III. *The Morbid Anatomy* consists in dilatation of the air-cells: this is sometimes visible, sometimes invisible, externally; sometimes the dilated cells are prominent, and sometimes even globular, with a narrow attachment only. Sometimes the textures break and there is emphysema of the cellular membrane, or interlobular emphysema.

2. *Interlobular Emphysema.*

530. This form of the disease arises from violent efforts, consists in the ruptured cells of the lobules, and true *inter*-lobular emphysema, and is denoted by the crepitant rattle "à grosses bulles," and by the noise of ascending and descending friction against the adjacent pleura; there is sometimes external emphysema.

VII. ASTHMA.

531. Besides those forms of dyspnœa consequent upon the dry bronchitis, and attendant upon emphysema (§ 525), there is a morbid affection which more distinctly claims the designation of *Asthma.*

532. I. *The History.* This affection occurs generally in the recluse and sedentary: college and studious habits induce it; so do the modes of life of tailors, shoemakers, &c. It is usually conjoined with symptoms of the acute dyspepsia.

533. II. *The Symptoms.* There are *attacks* of extreme and urgent dyspnœa, recurrent at, or soon after, midnight: strong, brief efforts to inspire are followed by longer, labored, and wheezing expirations; there is a dry, sounding cough, at first without expectoration; there is no fever, pain, or frequency of the pulse; but terrible anxiety and distress; the breath is tainted, and there is generally much flatus.*

* To this brief description, I beg to add that several patients have recovered by attending to the general health, and have been for years free from attacks of Asthma.

VIII. ŒDEMA.

534. I. *The History.* Œdema is rarely an *idiopathic* disease. It is, on the contrary, generally a *complication* or *sequela* of

1. *Protracted Fevers.*
2. *Diseases of the Heart.*
3. *Pneumonia.*
4. *Bronchitis, especially the Pituitous.*
5. *Other Dropsies, &c.*

535. II. *The Symptoms* are dyspnœa, slight cough, and aqueous expectoration. The stethoscope affords two *signs* of this disease: a diminished respiration, and a sub-crepitant rattle.

536. III. *The Morbid Anatomy.* The lung is dense, and at once crepitant and retaining the impression made by the pressure of the finger; on making an incision, there is a copious flow of limpid fluid.

IX. HYDROTHORAX.

1. *Idiopathic Hydrothorax.*

537. This affection is extremely rare. It usually exists on one side alone, and then this side is larger than the other. The symptoms are precisely those detailed in § 489, as denoting effusion in pleuritis.

There are probably other forms of Asthma still: one gentleman experienced attacks of dyspnœa on inhaling the atmosphere in which a vial of ipecacuanha had been merely opened. Another has his attack, if he attempts to sleep in a room higher than the ground-floor.

From Asthma it is necessary to distinguish *Hysteric Dyspnœa.* Dr. Heberden observes, in regard to this affection, "in iis etiam quibus pulmones sunt integerrimi, spiritus fit non minus difficilis quam in justo asthmate."—Com. p. 196. The dyspnœa is most urgent and attended with great heaviness of the chest. By waiting and watching, we soon detect unequivocal symptoms of Hysteria.

2. *Symptomatic Hydrothorax.*

538. This affection is as common as the idiopathic is rare. It may be the effect of all diseases, towards their close, acute or chronic; but it is chiefly so, of

1. *Diseases of the Heart.*
2. *Diseases of the Lungs.*
3. *Diseases of the Liver, &c.*

It frequently exists on both sides of the thorax. Its symptoms are similar to those described § 489.

X. PNEUMOTHORAX.

539. Pneumothorax may exist under the following forms:

1. *The Simple.*
2. *Complicated with Pleuritic Effusion.*
3. *Complicated with a Fistulous Communication with the Bronchia.*
4. *The Double.*

540. I. *The History.* This disease, when simple, most frequently occurs with pleuritis, in cases of phthisis. It may be simple, or complicated with effusion, or with a communication with the bronchia by means of a softened tubercle. It may be the result of the effusion and decomposition of blood, or the consequence of circumscribed gangrene.

541. II. *The Symptoms.* There is dyspnœa, and the side affected is generally enlarged. But the true diagnostics are derived from a comparison of the effects of percussion and of auscultation: one side of the thorax sounds better than the other, whilst the respiration is inaudible, except at the root of the lung, being audible at the side least sonorous. When effusion is added to the pneumothorax, there is dulness of sound on percussion of the lower part of the chest, and a fluctuation is heard when the patient changes his posture rapidly. If there be a fistulous communication with the bronchia, there is metallic tinkling, or amphoric resonance.

III. THE INSIDIOUS DISEASES.

I. ULCERATION OF THE LARYNX, ETC.

542. I. *The History.* This affection is of the most insidious character, and generally occurs without any obvious external cause.

543. II. *The Symptoms* of Ulceration of the Larynx are hoarseness, and hoarse cough, with the expectoration of mixed, limpid, and puriform mucus, frequently dotted or streaked with blood. The hoarseness, cough, and expectoration augment. Difficulty or imperfection in swallowing is added to the other symptoms: the patient frequently becomes choaked in the act of deglutition, or the food is propelled through the nostrils.

544. Hectic and emaciation eventually take place, frequently with all the symptoms of phthisis.

545. III. *The Morbid Anatomy* combines ulcerative destruction of some parts of the larynx, with tubercles of the lungs and frequently of other organs.

II. TUBERCLES, OR PHTHISIS.

546. I. *The History.* Phthisis is usually very insidious, slow, and gradual, in its progress and termination. In other instances its commencement and progress are more rapid, and its termination may be sudden and unexpected in any period of its course. The exciting causes are sometimes undetected; in other instances, exposure to cold, the debility left by some acute disease, by mercury, &c. are its obvious causes. Phthisis is distinctly an hereditary or family disease; it is also an effect of scanty or impure nourishment. (See further § 315.)

547. II. *The Symptoms.* The general symptoms of tuberculous diseases have been already fully detailed, §§ 316—318, and the local symptoms of phthisis, § 317. The local signs vary with the stage and state of the pulmonary disease. This may subsist in the following forms:

1. *Tubercles.*
   1. *Crude.*
   2. *Softened.*
2. *Excavation.*

548. 1. In accumulations of the crude tubercles, there is occasionally a perceptible diminution of sound on percussion, and diffuse broncophony, especially immediately under the clavicle and in the axilla, and especially on the right side.

549. 2. As the tubercles soften, a gurgling is heard, a mucous rattle is gradually established, and the cough becomes cavernous.

550. 3. As a cavity forms, and becomes emptied, the respiration and rattle become cavernous, and the broncophony passes into pectoriloquism, at first imperfect, and then more evident; and the sound of the chest may sometimes, though but rarely, become clearer. Pectoriloquism is a most distinct diagnostic: it may be perfect, imperfect, or doubtful, intermitting or permanent. When the cavity is superficial, there is sometimes the sound of cracked porcelain.

551. When the cavity is extremely large, there is no pectoriloquism, but the voice, cough, and respiration are attended by the amphoric resonance, and sometimes there is the metallic tinkling. The case differs from pneumothorax by the absence of fluctuation on rapid changes of posture.

552. III. *The Complications* of Phthisis present a most interesting subject for enumeration: they may be divided into several classes. The *first* is nearly peculiar to phthisis, and embraces

1. *Ulcerations of the Epiglottis, the Larynx, and the Trachea;*
2. *Ulcerations of the Clustered and Solitary Glands of the Ileum and Colon;*
3. *The Fatty Enlargement of the Liver.*

553. The *second* class consists of lesions which are only extremely frequent, and not peculiar to phthisis; they are

1. *Pleuritis.*
2. *Pneumonia.*

554. There is a *third* class of complications of phthisis, less frequent; this consists of

1. *Inflammation of the Arachnoid, or of the Substance of the Brain, with Effusion, or Softening.*
2. *Inflammation and Softening of the Mucous Membrane of the Stomach, or Colon.*

555. The *fourth* class consists of

1. *Tuberculous Inflammation of the Pleura, Peritonæum, &c.*
2. *Tuberculous Inflammation of the Lymphatic Glands, especially the Mesenteric, those of the neck, &c.*

556. The *fifth* class consists of

Serous Effusion into 1. *The Ventricles.*
2. *The Pleura.*
3. *The Pericardium.*
4. *The Peritonæum.*

557. To complete the view of this subject, it is necessary to add that the heart is sometimes softened, and that the aorta is found red in the young and more deeply altered in older subjects.

558. This list of the complications will enable the young physician to anticipate, and to obviate lesions which may, even amidst a disease almost always fatal in itself, fearfully tend to shorten the patient's few remaining days.

559. IV. *The Morbid Anatomy* of phthisis consists in the different forms and conditions of tubercles; of the cavities left by their softening and expectoration; and of the adjacent portions of the tongue and pleura.

III. MELANOSIS.

560. The *general Symptoms* of Melanosis have been noticed § 320. Instead of the *hectic* and *emaciation* of pulmonary tubercles, there is a disposition to *cachexia* and *anasarca*.

561. The stethoscopic *signs* are the same as those of unsoftened tubercles: § 548; cavities are rarely formed in Melanosis.

IV. ENCEPHALOSIS.

562. The *general Symptoms* of this disease have been detailed, § 321.

563. The *local Symptoms* are dyspnœa and cough, sometimes with expectoration. This disease generally occasions death by pressure and suffocation, before any extraordinary emaciation is induced. At length there are emaciation and dropsy.

564. The case may be mistaken for tracheitis, or bronchitis, when the tumor presses upon the windpipe, or bronchia, or for aneurysm, when it is seated so as to receive an impulse from an adjacent artery.

565. When the tumor has attained a certain size, there is the absence of respiration under the stethoscope, and of sound on percussion.

V. SCIRRHUS.

566. It is only necessary to refer to the general symptoms of Scirrhus, given § 323.

VI. CYSTS, CEPHALOCYSTS, ETC.

567. *The Symptoms* of Cysts, or of Hydatids, are dyspnœa and cough; when these bodies are near the surface of the lung, there is the absence of sound on percussion, and of respiration under the stethoscope.

IV. SYMPTOMATIC AFFECTIONS.

568. Before I dismiss the subject of the Diagnosis of Diseases of the Chest, I must once more advert to several *symptomatic* affections which require to be distinguished from them: they are

1. *Hysteric Croup.*
2. *Hysteric Pleurodyne.*
3. *Chlorotic Pleurodyne.*
4. *Dyspeptic Asthma.*

569. *Hysteric Croup* is so similar, in some instances, to Acute Laryngitis, and suffocation has been apparently so imminent, that the surgeon has been on the point of performing the operation of tracheotomy! This event is particularly noticed by Sir Charles Bell, in his 'Reports,' which it is much to be regretted that he has left unfinished. By *waiting* and *watching*, the case is unveiled by the occurrence of some unequivocal symptoms of hysteria.

570. *Hysteric Pleurodyne* is amongst the most acute pains of the chest. The surface of the skin even is sensitive to the touch. It is distinguished by the character of hurry and other symptoms of Hysteria. It is only necessary to put the young physician on his guard in regard to it.

571. *Chlorotic Pleurodyne* is sometimes so like Chronic Pleuritis that I have known patients to be bled and blistered for the *twentieth* time, under this erroneous impression. In this case the history, the general symptoms, and the stethoscope, with percussion, will enable the *attentive* practitioner to institute the due diagnosis.

572. *True Asthma* arises, I believe, generally, from dyspepsia. It is distinguished by the history, and general symptoms, by its peculiar sudden attack, and by being unpreceded by dry bronchitis, or other diseases within the thorax. See § 533.

CHAPTER III.

THE DIAGNOSIS OF THE DISEASES OF THE HEART AND LARGE ARTERIES.

573. In treating of the Diagnosis of the Diseases of the Heart and large Arteries, it will be my object, as usual, to select all the really important and practical distinctions, whilst I avoid the useless minutiæ with which this subject has been encumbered.

574. The most frequent diseases of the heart, are, *dilatation* and *hypertrophy* of the *ventricles*, *single*, or *variously combined*.

575. The diseases of the heart, next in frequency, are *ossification*, or excrescences, of the *valves of the aorta*, or of the *mitral valve:* these generally induce eventually hypertrophy or dilatation of the ventricles.

576. Next follow *hypertrophy*, or *dilatation, of the auricles*, of still more rare occurrence, and usually consecutive to disease of the valves or ventricles.

577. This abstract will enable the young student to form distinct ideas of the diseases of the heart of most usual occurrence: *pericarditis* and *hydropericarditis*, and *aneurysm of the aorta* and *large arteries*, must be added, and the list of diseases of the heart and large vessels is nearly complete.

578. These diseases may be thus presented in a tabular form:

ARRANGEMENT OF DISEASES OF THE HEART AND LARGE ARTERIES.

I. Disease of the Heart in General.

II. Hypertrophy.

1. *Of the Left Ventricle.*
2. *Of the Right Ventricle.*

III. Dilatation.

1. *Of the Left Ventricle.*
2. *Of the Right Ventricle.*

IV. Hypertrophy with Dilatation.

1. *Of the Ventricles.*
2. *Hypertrophy of One Ventricle and Dilatation of the Other.*
3. *Of the Auricles.*

V. Disease of the Valves.

1. *Of the Aortic Valves.*
2. *Of the Mitral Valve.*

VI. Pericarditis.

VII. Hydropericarditis.

VIII. Aneurysm.

1. *Of the Aorta.*
2. *Of other Arteries within the Thorax.*
3. *Of the Arteries in the Abdomen.*

IX. Sympathetic Affections.

1. *Deficient Action of the Heart.*
2. *Palpitation. Bruit de Soufflet.*

3. *Angina Pectoris.*
4. *Pulsation in the Epigastrium.*

I. DISEASE OF THE HEART IN GENERAL.

579. I. *The History.* The most frequent *cause* of disease of the heart, is some antecedent disease, attended by dyspnœa, and consequently most frequently of the lungs. The principal of these are

1. *Dry Bronchitis.*
2. *Emphysema.*
3. *Phthisis.*
4. *Chronic Pneumonia.*
5. *Empyema.*

580. To these causes are to be added muscular efforts, mental emotions, and nervous diseases. And to these, it is said, the congenital disproportion between the size of the heart and the calibre of the aorta, and the congenital unusual thickness or thinness of the ventricles.

581. There is still another addition to be made to the list of causes of disease of the heart of an important kind: it is that of

The Metastasis of Rheumatism.

The reader may turn to § 294.

582. II. *The Symptom* of Disease of the Heart, in its early stage, is *dyspnœa*, uniformly induced, or aggravated, by muscular effort or exertion; in its later stages, various effects of derangement of the *capillary circulation* are superadded.

583. 1. Disease of the heart, even in its early stages, is highly characterized by the *invariable* aggravation of the dyspnœa, on making the patient walk quickly, or run up stairs: the beat of the heart becomes violent or tumultuous, and there is a sense of great oppression or of suffocation. The sleep is disturbed by frightful dreams.

584. In the later stages and more aggravated forms of Disease of the Heart, the dyspnœa and oppression are permanent, perhaps extreme: not only muscular effort, but the horizontal posture becomes insupportable.

585. The countenance, at first of a dingy pallor, becomes tumid, and livid, or of a purple hue, especially the lips; the posture is raised by successive additions of pillows, until it becomes perfectly upright, and eventually the patient may require to have the feet placed low, whilst his head and shoulders are raised, and the shoulders or elbows are supported. The dyspnœa and oppression augment, the various *Complications* to be immediately enumerated, with their appropriate symptoms, are gradually superadded.

586. The symptoms and signs of each particular disease of the heart will be detailed under their respective heads.

587. III. *The Complications* of disease of the heart, form, with that disease, and its most frequent causes, a series or chain of organic lesions of the most interesting character. The causes have been already enumerated, § 579; the *effects* are the following:

1. *Cerebral Apoplexy.*
2. *Bronchial, and*
3. *Pulmonary Hæmorrhagy.*
4. *Congestion of the Liver;* &c.
5. *Congestion of the Membrane lining the Ventricles and the Aorta.*
6. *Congestion of the*
    1. *Sub-serous,*
    2. *Sub-mucous, and*
    3. *Sub-cutaneous, Tissues.*
7. *Effusion into the*
    1. *Ventricles,*
    2. *Pleura,*
    3. *Pericardium,*

4. *Peritonæum,*
5. *Cellular Membrane:*

    1. *Of the Lungs; Œdema.*
    2. *Of the Intestines.*
    3. *Of the Integuments; Anasarca.*

588. IV. *The Effects of Remedies.* There is a degree of relief from blood-letting, and from digitalis, not observed in nervous affections of the heart.

II. HYPERTROPHY.

1. *Hypertrophy of the Left Ventricle.*

589. I. *The Symptoms of Hypertrophy* of the Left Ventricle of the heart, in addition to the symptoms of disease of the heart in general, are a florid complexion, forcible pulsation of the heart, a strong and generally a regular pulse; there are frequent palpitations.

590. II. But it is to the *Signs* afforded by the stethoscope and percussion, that we must have recourse for the diagnosis of the individual diseases of the heart. The contraction of the ventricle is accompanied by a strong impulse, and a feeble sound; it is prolonged in proportion to the hypertrophy, and is felt and heard over a small space, and principally *between the cartilages of the fifth and sixth ribs*, on the left side of the chest. The *second* sound is brief, and low.

591. III. *The Complications.* It is in this form of disease of the heart that *Apoplexy* most frequently occurs as a complication.

592. *The Morbid Anatomy* consists in augmented thickness and firmness of the parietes of the ventricle.

2. *Hypertrophy of the Right Ventricle.*

593. I. *The Symptoms.* There is, in this case, greater dyspnœa; and there is frequently an obvious pulsation of the *jugular veins.*

594. II. *The Signs.* The beat of the heart is attended with great impulse; there is rather less dulness of sound than in hypertrophy of the left ventricle; these signs are perceived *under the sternum.*

III. DILATATION.

1. *Dilatation of the Left Ventricle.*

595. *The History.* This form of disease of the heart occurs most frequently in women, who have naturally a heart of thinner parietes than men. Its *causes* are ossification of the valves, congenital tightness of the aorta, diseases of the lungs, laborious occupations, &c.

596. II. *The Signs.* The only true sign of Dilatation of the Left Ventricle is a clear and loud sound, heard under the ear or stethoscope, chiefly between the cartilages of the fifth and sixth ribs. The extent to which this sound is diffused is the measure of the degree of dilatation.

2. *Dilatation of the Right Ventricle.*

597. *The Symptoms.* According to Laënnec, *habitual swelling*, without perceptible pulsation, of the *jugular veins*, is the most constant, yet still an equivocal, symptom of dilatation of the left ventricle.

598. The only pathognomonic *Sign* is the loud sound of the heart under the lower part of the sternum.

IV. DILATATION WITH HYPERTROPHY.*

599. I. *The Symptoms.* This disease is attended by violent palpitations: the head, the limbs, are moved at each contraction; the pulsation of the carotids is visible, and the pulse is full, strong, and vibrating.

600. II. *The Signs* afforded by the stethoscope, or the application of the ear, are those of hypertrophy and of dilatation, §§ 570, 576, combined: the contraction of the ventricles are attended by *great impulse* and a notable *sound;* the second sound is loud; the ventricular contraction is heard and felt over a great extent. The *situation*, §§ 570, 574, in which the contractions of the ventricles are perceived, determines whether the left or the right ventricle alone, or both, be affected.

601. III. It is in dilatation with hypertrophy that the heart acquires the greatest volume, and in which, consequently, the sound on *percussion* of the region of the heart, is most obscure.

602. Sometimes there is dilatation of one ventricle and hypertrophy of the other: there is then the corresponding *augmented impulse*, or *sound*, between the cartilages of the fifth and sixth ribs of the left side, or at the lower part of the sternum, respectively.

603. Dilatation and Hypertrophy of the Left Auricle, usually the effect of disease of the mitral valve; or of the Right Auricle, the effect of Hypertrophy of the Right Ventricle, are not to be distinguished from those original diseases; and if they could, the distinction would be more curious than useful.†

604. IV. *The Morbid Anatomy.* The parietes of the ventricles are greatly thickened and their cavities enlarged; the heart, in consequence, occasionally attains an enormous size.

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* The "*Active Aneurysm*" of Corvisart, a far more common affection than hypertrophy, or even dilatation, singly.

† The signs of *induration* of the heart are those of hypertrophy: those of *softening*, defective impulse and of sound, occurring simultaneously.

V. DISEASE OF THE VALVES.

605. *The Signs* of Disease or Constriction of the Valves consist in the "bruit de rasp" and the "frémissement cataire:" the former resembles the sound of a rasp acting upon wood; the latter the purring of the cat felt under the finger.* The pulse is irregular. There are many of the general symptoms of disease of the heart.

606. II. *The Morbid Anatomy.* The mitral valve and the sigmoid valves of the aorta become ossified, or assume a cartilaginous hardness: they are then thickened and altered in form, and frequently partially closed, so that the course of the blood is impeded. Such disease occurs rarely on the right side of the heart.

607. In other cases morbid growths take place from the surface or borders of the valves.

VI—VII. PERICARDITIS AND HYDROPERICARDITIS.

608. I. *The History.* The *causes* of Pericarditis are obscure: a blow, violent exertion, or mental affection, have appeared to be the most frequent. Men are more subject to this disease than females.

609. II. *The Symptoms* of Pericarditis are sudden pains in the region of the heart, palpitation, dyspnœa, irregularity of the pulse, the absence of respiratory murmur under the ear, and of sound on percussion.

610. III. *The Signs.* The contractions of the ventricles frequently become stronger and irregular; and are attended with the creaking sound of new leather, when the surface of the part is covered with a false membrane.

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* The situation and period of the former of these signs might determine, if it were of any moment to do so, the particular valve affected.

611. IV. *The Morbid Anatomy* consists of

1. *The Effusion of Serum, with or without Lymph, Pus, or Blood.*
2. *The Formation of a False Membrane over the Surface of the Heart or Pericardium.*
3. *Adhesions; sometimes Ossifications.*

VIII. ANEURYSM OF THE AORTA.

612. I. *The History.* No disease is more insidious than Aneurysm of the Aorta. It sometimes exists, and even proves suddenly fatal, unsuspected, in persons apparently the most healthy; and, until it induces some symptom of the compression of adjacent parts, it may be indetectible.

613. II. *The Symptoms.* Aneurysm of the Aorta consists in simple, forcible pulsations, perceptible over a circumscribed spot of the anterior parietes of the thorax, or along the spine, under the ear, and finger. These pulsations are more forcible than those of the left ventricle. It is frequently extremely difficult to distinguish such aneurysmal pulsations from those of a tumor situated over or upon the artery. In both cases the sound emitted by percussion is obscure.

614. III. *The further Symptoms* of Aortic Aneurysm are, in fact, those of its effects upon contiguous parts, or organs, which may be arranged in the following manner:

1. *Compression of the Trachea, or Bronchia.*
2. *Compression of the Œsophagus.*
3. *Compression of One of the Subclavian Arteries.*
4. *Protrusion and Wearing of the Ribs or Sternum.*
5. *The Wearing of some Part of the Vertebral Column.*

615. 1. Compression of trachea or bronchia induces symptoms similar to those of chronic tracheitis, or bronchitis. The stethoscope should, therefore, be carefully, applied in every case of these latter diseases.

616. 2. Compression of the œsophagus leads to dysphagia. The case of Aneurysm must be distinguished from that of other tumors compressing this organ, or of stricture.

617. 3. When Aneurysm compresses one of the subclavian arteries, it leads to dissimilarity in the pulse of the two radial arteries.

618. 4. Protrusion and Wearing of the ribs or sternum, will be attended by the simple pulsation of the Aneurysm. The case must be distinguished from that of a tumor, moved by the subjacent artery.

619. 5. Wearing of the vertebral column is attended by pains described as resembling those of *rheumatism*, or as being of a gnawing, tearing, or lacerating nature. The stethoscope must be called in aid of the diagnosis.

620. It ought to be repeated that a tumor, as encephalosis, may occasion precisely similar effects. The reader may revert to § 504, and pass on to § 636.

IX. THE SYMPTOMATIC AFFECTIONS.

621. The first of the Symptomatic Affections of the Heart are those in which the action of this organ is too feeble: these are

1. *The Erethismus Mercurialis.*
2. *The Effects of the Digitalis.*

622. *The Symptoms* in the former case have been already detailed, §§ 214—217.

623. *The Symptoms* resulting from the Digitalis are nausea and vomiting, debility, faintness, and cold perspirations; the action of the heart and the pulse are feeble and intermitting.

624. The second symptomatic affection is the

Angina Pectoris.

625. I. *The History.* This affection consists in attacks which recur at various intervals, generally from the influence of muscular effort or exertion, as in walking quick, up an ascent, or meeting the wind; or from mental emotions, especially anger. This affection occurs principally in men, past fifty.

626. II. *The Symptoms* are a sense of pain, pressure, or constriction in the region of the heart, across the breast, especially on the left side, and of pains or numbness down the arms, especially the left. In females the mamma is sometimes extremely sensitive to the touch. In extreme cases there are palpitation, or syncope, and suffocating dyspnœa, and the apparent danger of dissolution. It is sometimes suddenly fatal.

627. At first the intervals are long and free from indisposition; afterwards they become shorter, and the angina is far more readily excited, if not in some degree constantly present.

628. III. *The Morbid Anatomy.* Heberden observes—"Inciso cadavere hominis, qui hoc morbo subito perierat, expertissimus anatomicus nullum vitium deprehendere potuit in corde, aut valvulis, aut in arteriis, venisve viciuis, præter exigua rudimenta ossea in aorta." Laënnec is of opinion that the Angina Pectoris, although it may be accidentally associated with diseases of the heart, does not, as Parry supposed, necessarily depend upon it.

629. The third class of symptomatic affection of the heart consists of

1. *Palpitation and the*
2. *Bruit de Scie.*

630. These symptoms are apt to occur in

1. *Intestinal Irritation.*
2. *Reaction from Loss of Blood.*
3. *Hysteria.*
4. *Chlorosis.*
5. *Dyspepsia.*

631. It is only necessary for me to refer to the descriptions of these affections, the diagnosis flowing from the general symptoms.

632. Palpitation is more felt by the patient, than the beating of the heart in hypertrophy; and it is, in fact, attended by little real impulse: scarcely raising the ear or the stethoscope.

633. The 'bruit de scie,' is, like palpitation, a frequent symptom in some nervous affections. It attends the reaction from loss of blood, and may be produced in a dog very readily, as I have shown in a recent Essay.* I have also observed it most distinctly in Chlorosis.

634. The last symptomatic affection which I shall notice in this place is

Pulsation in the Epigastrium, &c.

635. This affection seems, like palpitation, to be dependent on nervous causes, and is distinguished, like that symptom, by occurring in paroxysms, in dyspeptic persons, from mental emotion, &c.

636. Sometimes aneurysm is imitated still more accurately by the pulsation being communicated to an apparent tumor,

* See the Med. Chir. Trans. vol. xvi.

formed by gas pent up, or fæculent matter detained, in folds of the colon.*

637. Pulsation, the sense of purring, the "bruit de soufflet," the "bruit de scie," occur along the abdominal aorta, in the carotid, and even in the radial artery, from similar nervous causes.

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* An interesting case of this kind, in which both Bayle and Laënnec were deceived, is detailed by the latter able writer.

CHAPTER IV.

THE DIAGNOSIS OF THE DISEASES OF THE ALIMENTARY CANAL.

638. The alimentary canal comprises the stomach, the duodenum, the jejunum, the ileum, the colon, and the rectum. Each of these portions is liable to its peculiar diseases, and is, therefore, of great interest in a medical point of view.

639. Each division of the alimentary canal may be viewed as consisting of a serous and of a mucous membrane, of a muscular coat, and of a cellular tissue. Each of these textures is subject to its peculiar morbid actions and lesions.

640. It may be observed, in general, that inflammatory affections of the peritonæum do not necessarily disturb the functions of the stomach and intestines; those of the muscular coat, on the contrary, as enteritis, are apt to be attended by sickness, severe pain, and obstruction; whilst those of the mucous membrane are usually associated with pain of a less severe kind, and diarrhœa. We may readily judge of the character of the first by what we witness in the familiar example of Peritonitis, of that of the second by what occurs in Hernia, and of that of the third by the symptoms observed in Dysenteria. I would propose to characterize the inflammatory affections of the mucous membrane by prefixing the Greek preposition εσω to our present terms: eso-gastritis and eso-enteritis would, in a very simple manner, express inflammation of the mucous membrane of the stomach and of the intestines; and the further epithets of membranous and follicular would

distinguish the inflammation of the mere membrane or of the follicles.

641. Of affections of a nature different from inflammation, some are attended with obstruction and distention, whilst in others, to these symptoms are added an inverted or antiperistaltic action, and vomiting, perhaps of fæculent matters.

642. The diseases of the alimentary canal admit of a practical division, into the Acute, the Chronic, and the Insidious, distinguishing, by the last mentioned term, those diseases which are usually progressively, though slowly, fatal. To this list the symptomatic affections must be subjoined.

643. It is in these different aspects that the subject is to be viewed in this work, and the diseases of the entire alimentary canal may be presented in the following tabular form:

ARRANGEMENT OF THE DISEASES OF THE ALIMENTARY CANAL.

I. THE ACUTE DISEASES.

I. PERITONITIS.

1. *Diffused.* 2. *Partial.*

II. ESO-GASTRITIS.

III. THE EFFECTS OF CORROSIVE POISON.

IV. ENTERITIS.

V. OBSTRUCTIONS OF THE INTESTINES.

1. *Hernia, External and Internal.*
2. *Compression; Internal Obstruction.*
3. *Intus-susceptio.*

VI. ILEUS; COLIC.

VII. COLICA PICTONUM.

VIII. IRRITATION.

IX. Cholera.

1. *Europæa.*
2. *Indica.*

X. Eso-enteritis.

1. *Membranous.*
2. *Glandular.*

XI. Dysenteria.

XII. Hæmorrhagy.

XIII. Perforation.

1. *Of the Stomach.*
2. *Of the Intestine, &c.*

XIV. Suppuration of the Appendages of the Uterus.

XV. Inflammation of the Appendix Cæci.

II. THE INSIDIOUS AND PROTRACTED DISEASES.

I. Peritonitis.

II. Tubercles.

1. *Of the Peritonæum.*
2. *Of the Intestines.*
3. *Of the Mesenteric Glands.*

III. Eso-gastritis.

IV. Eso-enteritis.

V. Scirrhus.

I. *Of the Stomach;*

1. *Of the Cardia,*
2. *Of the Stomach,*
3. *Of the Pylorus.*

II. *Of the Intestine;*

1. *Of the Ileum,*
2. *Of the Colon,*
3. *Of the Rectum, contrasted with other Diseases of this Intestine.*

VI. Encephalosis; &c.

III. THE CHRONIC DISEASES.

I. Dyspepsia.

II. Intestinorum Torpor.

III. Vermes.

IV. THE SYMPTOMATIC AFFECTIONS.

I. Arthritis.

II. Hysteria.

I. THE ACUTE DISEASES.

1. PERITONITIS.

1. *Diffused.*

644. I. *The History.* The attack of acute Peritonitis is generally prompt or sudden, after exposure to wet and cold, and after rigor.

645. II. *The Symptoms* arise out of acute pain and tenderness in the abdomen: the countenance has a peculiar expression; the upper lip is drawn upwards and bound tightly over the teeth; the posture of the patient is not less peculiar; he generally lies still, upon the back, every motion being

attended by augmented pain; the head cannot be raised from the pillow, nor the trunk moved, without exciting pain and its expression in the countenance and manner; the respiration is thoracic, the diaphragm being kept unmoved; the knees are frequently raised so as to remove the pressure of the bed-clothes.

646. A careful examination of the abdomen should be made, daily: in this manner we detect the part which is the principal seat of inflammation, and even some part of the morbid changes, as the effusion of serum, and perhaps of lymph, by the pain and tenderness experienced, and the tension observed on pressure.

647. The functions of the stomach and bowels are not always materially affected; there may be no vomiting, nor constipation.

648. The skin is usually of very moderate heat; the pulse very moderately quick.

649. III. *The Effects of Remedies.* There is, in this, as in all cases of inflammation of the serous membranes, great tolerance of loss of blood; and this fact becomes a most important diagnostic and guide in the treatment of the disease.

650. *The Pathology.* The morbid changes consist principally of the effusion of serum, mingled, or not, with flakes of lymph, puriform, or sanguineous; or of lymph, by means of which adhesions are contracted between the peritoneal surfaces, or the folds of the intestine.

2. *Partial Peritonitis.*

651. Peritonitis may be partial. It *may be* confined, indeed, to *any* part of the peritonæum, as that which covers *the stomach*, *the intestines*, or any portion of the latter; to *the epiploon*, to *the hypochondrium*, to *the mesentery*, to *the pelvis*, &c.

652. In many of these cases, the *symptoms* are pain, tenderness, and perhaps hardness and tumidity, of the part affected, together with some degree of interruption of the function of the adjacent organs.

II. GASTRITIS.

653. Gastritis, or rather Eso-gastritis, § 640, as an acute disease, is extremely rare; yet, I believe I have witnessed several instances of such an affection.

654. *The Symptoms* consist in pain, or weight, or dragging, in the region of the stomach, very shortly after eating, and after taking the mildest medicines, sometimes amounting to a paroxysm of suffering, and only terminated by vomiting, and recurring after each repetition of the cause. With these symptoms there are debility and emaciation.

655. Similar symptoms have appeared to me to arise in *inflammation of the duodenum*, with the addition of icterus, and a tender and somewhat enlarged condition of the liver.

656. II. *The Morbid Anatomy* of this affection is unknown, but it probably consists in injection or softening of the mucous membrane.

657. Acute Gastritis occurs in one very unequivocal case, that of the administration of

III. CORROSIVE POISON.

658. I. *The History.* As concealment is frequently attempted in this case, it is very important to be aware of every possible means of discovering the fact of poison administered.

659. II. *The Symptoms* which should excite suspicion, are, a *sudden* attack of pain, of vomiting, and, perhaps, of diarrhœa. The matters rejected, and passed, should, of course, be carefully examined. The history and the acts of the patient, of the persons near or present; the articles in the room, &c. are so many sources of diagnosis.

IV. ENTERITIS.

660. I. *The History.* The attack of Enteritis is usually rather sudden, and frequently occasioned by exposure to wet and cold.

661. II. *The Symptoms* are those of peritonitis, § 645, with the addition of sickness and vomiting, and obstruction or extreme difficulty of moving the bowels. The extremities are frequently cold and livid, and the pulse small; the countenance expressive of great pain, the upper lip being raised and bound over the teeth; the movements extremely cautious; the respiration thoracic; the abdomen extremely tender.

662. Early *sinking* is apt to take place, without gangrene: the countenance is cold, livid, and collapsed; the extremities livid, cold, and clammy; the pulse thread-like or quite imperceptible; the pains perhaps entirely gone. The patient and bystanders frequently imagine that the disease is subdued, when it is, in fact, only yielding to dissolution. This is particularly the case in a renewed attack of Enteritis.

663. III. *The Morbid Anatomy* in Enteritis consists chiefly in the deposit of layers of lymph upon the intestine, leading to adhesions.

V. OBSTRUCTION OF THE INTESTINES.

664. In every case of Enteritis, or of disease similar to Enteritis, the physician should search diligently for some cause of Obstruction; for the symptoms of the two affections are almost identical.

665. The different forms of Obstruction are

1. *External Hernia.*
2. *Internal Hernia.*
3. *Intus-susceptio.*
4. *Compression.*
5. *Internal Obstruction.*

666. The first of these is principally

1. *Inguinal.* 2. *Femoral.* 3. *Umbilical; &c.*

667. The second is hidden, being

1. *Diaphragmatic;*
2. *Mesenteric;* 3. *Epiplootic, &c. or*
4. *Formed by the Passage of a fold of Intestine between a Loop of Intestine adherent after Inflammation.*

668. *Intus-susceptio* generally consists of the descent of a higher portion of intestine into a lower one,—of the ileum into the colon. In this case there is sometimes, with the usual symptoms of obstruction, a tumor of an extended form along the part affected.

669. *Compression* is the consequence of a tumor external to the intestines; *internal obstruction* is the effect of calculus, or perhaps of impacted fæces. In all these cases a tumor will be discovered on examination.

670. *The Symptoms.* There is less tenderness, at first, but more sickness and vomiting, than in Enteritis, and the obstruction of the bowels, under the influence of purgatives and enemata, is complete. *Such symptoms should always lead to the most attentive search for the source of obstruction.*

671. There is great anxiety. The sickness and vomiting increase; the abdomen becomes tender and tumid; the obstruction is obstinate, the action of the bowels perhaps antiperistaltic, so as to lead to stercoraceous vomiting.

672. *The Morbid Anatomy.* Besides the effects of strangulation upon the part more immediately involved in it, as inflammation, gangrene, &c., the intestine above this part is apt to be distended, to a greater or less extent, in the whole, or in parts, of its circumference, according to the acute or more chronic character of the disease.

VI. ILEUS OR COLIC.

673. This disease is very obscure. It frequently proves fatal without leaving any traces of inflammation; and I confine the terms to cases unattended, uncomplicated by other diseases.

674. I. *The Symptoms* are very similar to those of enteritis and obstruction: there are pains, generally twisting pains of the bowels, chiefly round the umbilicus; vomiting; obstinate constipation; the pain is sometimes relieved rather than augmented by pressure; at length tenderness and tympanitis are superadded to the tormina, perhaps with the inverted action of the intestines and the vomiting of fæculent matters. There are great anxiety, little febrile action, sometimes speedy sinking.

675. II. *The Pathology.* In some cases a portion of the

intestine is found much distended; in others there is the effusion of lymph; and in others a state of gangrene.

676. But, in fact, the causes and the pathology of Ileus or Colic, properly distinguished from all other diseases, are extremely obscure, and highly deserving of fresh investigation.

VII. COLICA PICTONUM.

677. I. *The History.* This affection arises from exposure to the influence of lead, and especially, if not exclusively, according to Dr. A. T. Thomson, to that of the carbonate. It is sometimes a very acute, at others a more chronic, disease.

678. II. *The Symptoms* are extreme pain of the abdomen, unaugmented, perhaps relieved, by pressure; vomitings, obstinate constipation, retraction of the abdomen towards the spine; generally *without* fever,—chills, heat, or perspiration,—quickness of pulse, whiteness of the tongue, &c. and frequently promptly relieved by large doses of emetics and purgatives.* There are frequently pain of the limbs, especially of the arms, great distress, sleeplessness, and restlessness.

679. Sometimes the disease is *less acute*, and the pains are at one period dull, at another extreme. The attacks may continue several days, or even a month, pass off, and return after various intervals.

680. After a varied duration of this disease, there is usually the accession of *pain*, and of a *peculiar paralysis of the extensor muscles of the hands*, but also of the arms and sometimes of the legs; the thumb and fingers are frequently forcibly flexed or distorted. The character of this disease, whether in the abdomen or in the limbs, seems to be that of paralysis united with pain.

681. III. *The Varieties and Complications* of the Colica Pictonum deserve to be distinctly enumerated. Heberden,† M. Louis,‡ and M. Andral,‖ mention

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* These constitute the 'traitement de la Charité.'

† Commentarii, ed. 1807, p. 330.

‡ Recherches Anatomico-Pathologiques, pp. 483—491.

‖ Médecine Clinique, ed. 2, t. iv, p. 153.

Sudden Death

as an event in this disease. The former speaks of lead as "nervis inimicissima." The other events or complications of the colica pictonum are

1. *Coma; Delirium.*
2. *Pain and Paralysis, of the Legs, as well as Arms.*
3. *Convulsions.*

682. The adductor pollicis shrinks, and sometimes a tumor of the size of a nut is seen occupying the beginning of the meta-carpal bone of the middle finger.

683. IV. *The Effects of Remedies* have been already mentioned, § 678.

684. V. *The Morbid Anatomy.* The most recent researches of M. Andral, M. Louis, and others, confirm the opinion of Heberden, that there is no morbid appearance peculiar to this disease.*

685. The seat of the disease is probably the spinal marrow. In this organ we must, therefore, look for its morbid appearances which have hitherto escaped detection.

VIII. STOMACHAL AND INTESTINAL IRRITATION.

686. It is only necessary to refer, in this place, to §§ 181, 185, and to request the reader's attention to the importance of the distinction between these diseases, and especially to the diagnosis afforded by the effects of the loss of blood.

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* "Inciso cadavere hominis hac colica peremti, nullum vitium intus in corpore deprehensum est, quod ad hunc morbum pertinere, mortemque inferre potuisset." Heberden. p. 330.

IX. CHOLERA.

1. *Cholera Europæa.*

687. I. *The History.* This disease usually arises rather suddenly from the influence of heat, in the autumnal season.

688. II. *The Symptoms* are violent abdominal pains, with bilous vomiting and purging. The face and surface are often cool, the extremities cold and perhaps clammy and livid, and the pulse small. To these symptoms are frequently added severe cramps and sometimes even convulsions.

689. III. *The Pathology.* There is frequently not the slightest trace of morbid change of structure on examination after death. In protracted cases, red, brown, or black patches, and even gangrenous points, have been found in some parts of the intestines, and the liver has been much congested.*

2. *Cholera Indica.*

690. I. *The History.* This terrible disease is epidemic or sporadic. In the former case it is of dreadful fatality. When sporadic, it is less so. Its causes are very obscure.

691. II. *The Symptoms.* The *early* symptoms are mere diarrhœa, perhaps unattended by pain or spasm; the evacuations are copious, liquid, almost inodorous, and usually compared, in appearance, to rice-water.

692. *Afterwards*, the same sort of fluid is rejected by vomiting and passed by stool, in amazing quantities, variously attended by pain, anxiety, and cramps, but speedily followed by

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* Rostan, Cours de Médecine Clinique, ed. 2, t. ii, p. 506.

collapse and sinking, the countenance being livid, cold and clammy, the arm livid, cold, clammy, and pulseless, the voice husky; there is complete suppression of urine.

693. In the worst cases there are early blueness, pallor, and collapse of the countenance; loss of voice, loss of pulse; a cold, clammy, and livid state of the extremities; speedy sinking or asphyxia.

694. III. *The Morbid Anatomy* consists in intestines replete with fluid like rice-water, in a gall-bladder replete with bile; and in a urinary bladder empty and collapsed. The mucous membrane of the intestines is apt to be injected, and even gangrened, and the clustered and isolated glands are frequently enlarged: but none of these appearances are constant.

X. ESO-ENTERITIS.

1. *Membranous.*

695. A state of inflammation of the mucous membrane of the intestine seems to be the cause of many forms of *Diarrhœa* especially those attended by *mucous* discharges.

696. I. *The Symptoms.* There are slight pains or griping, tenderness on pressure, and sometimes, but not always, frequent evacuations. The countenance is pale, perhaps icterode; there are emaciation, and considerable debility. The affection is extremely apt to pass into the chronic form.

697. II. *The Morbid Anatomy* consists in injection, softening, and ulceration of the mucous membrane.

2. *Glandular Eso-enteritis.*

698. This term expresses the tumidity and ulceration of Peyer's and Brunner's glands, already mentioned as occurring

in the *acute* form, in Typhus, § 86, and in the *chronic* form in Phthisis, § 552.

XI. DYSENTERIA.

699. I. *The History.* I witnessed this disease, in its *epidemic* form, in the summer and autumn of three successive years. It also frequently occurs sporadically. Is it ever contagious?

700. II. *The Symptoms* are griping, with frequent or incessant mucous, sanguineous stools, and constant tenesmus.

701. There is frequently sickness, and pain and tenderness of the epigastrium, and over the course of the colon, especially in the left ileum. The "desidendi cupiditas" and the tenesmus are quite terrible. The pain, anxiety, and distress are frequently extreme.

702. This affection may pass suddenly into the sinking, or slowly into the chronic state.

703. *The Morbid Anatomy* consists of injection, thickening, and ulcerations of the mucous membrane of the colon and rectum. In severe cases, the morbid changes are still more deeply seated, and the tumefaction is such as to thicken the textures of the intestine whilst it contracts its calibre; the ulcerations are of irregular forms, but, generally, I think, transverse, and frightfully deep.

XII. HÆMORRHAGY.

704. Hæmorrhagy may take place from the surface of the gastric and intestinal mucous membrane congested from any cause, and the blood may be rejected by vomiting or passed per anum, constituting *hæmatemesis* or *melæna*. This event is frequently, if not chiefly, induced by the loaded condition of the bowels observed in Dyspepsia, Chlorosis, &c. §§ 228; 238.

705. This affection has been cured in many instances which

I have witnessed; but I suppose it may be attended by that state of the intestine which has been designated and depicted as the hæmorrhagic, and then prove less remediable.

706. It is well known that hæmorrhagy from the stomach and bowels is a consequence in many diseases, as fever, purpura, ulcers, cancer, &c. and of obstruction of the vena portæ.

XIII. PERFORATION.

707. I. *The History.* This fatal accident may take place in the *Stomach*, or *Intestines*, and occurs principally from the following circumstances:

1. *Softening of the Mucous Membrane.*
2. *Ulceration of Peyer's or Brunner's Glands, in*
    1. *Typhus;*
    2. *Phthisis.*
3. *The Separation of an Eschar, the effect of poisoning by Sulphuric Acid.*
4. *Gangrene induced by Strangulation.*
5. *Ulceration in Dysentery.*
6. *Rupture in Cancer and other Diseases.*

708. II. *The Symptoms* are those of the most sudden peritonitis or enteritis: violent pains of the abdomen, exceedingly augmented by pressure; nausea and vomiting; dreadful change in the countenance, in the powers, and in all the vital functions; a rapidly sinking pulse, a cold, clammy state of the face and of the extremities.

XIV. SUPPURATION OF THE APPENDAGES OF THE UTERUS.

709. This event is frequently a sequela of puerperal peritonitis; which is apt to terminate in suppuration, and abscess, and an external opening. There are, pain, tenderness, and tumor, in the situation of the uterine appendages.

XV. INFLAMMATION OF THE APPENDIX VERMIFORMIS CÆCI.

710. This disease is generally the result of some substance received and retained in that singular canal. In one case it was a cherry-stone, in a second a pin, in a third a tooth. There are local pain, tenderness, and tumor. This disease usually leads to speedy sinking.

II. THE INSIDIOUS DISEASES.

I. PERITONITIS.

711. I. *The History.* Chronic Peritonitis may originate in the acute form, or be chronic from its commencement. It may require great attention for its detection.

712. II. *The Symptoms.* There is sometimes little or no pain, tenderness, or tumor of the abdomen, although a careful examination generally detects some degree of one or other of these symptoms. There is frequently also some degree of vomiting and diarrhœa. But the principal symptoms consist of hectic fever and emaciation. See further, §§ 313, 314.

713. In the course of the affection, various effusions of serum or lymph take place, and the elasticity of the abdomen is diminished, generally or partially, so as to constitute diffused or partial hardness or tumor, or even suppuration; or a state of ascites is established.

714. III. *The Varieties and Morbid Anatomy.* This affection, frequently obscure in itself, is rendered still more so by its varied forms and complications: these arise principally from the

1. *Effusion of Serum, when it resembles Ascites.*
2. *The Effusion of coagulable Lymph, when it assumes the form of abdominal Tumor or Tumors.*

3. *The Supervention of Inflammation, or Ulceration, of the mucous Membrane of the Stomach, or Intestines, or the Mucous Glands.*
4. *The Deposit of Tubercles.*

715. The last complication of chronic Peritonitis naturally leads us to the consideration of

II. TUBERCLES.

716. *The History* and the *general Symptoms* have been already detailed, § 318. It only remains to trace, in this place, *the local Symptoms* of this disease.

717. I. *The History.* Compared with chronic peritonitis, Tubercles of the abdomen form a far more insidious disease still; and it rarely, if ever, puts on an acute form at its commencement, in its progress, or at its termination.

718. II. *The local Symptoms* are at first obscure and deep-seated pain in the abdomen and generally in the right iliac region. This pain is sometimes aggravated for a day or two. At a later period, a degree of tension, and finally of tumor, is added to the tenderness. The bowels are uncertain: frequently there are copious, white, alvine evacuations.

719. III. *The Morbid Anatomy* consists in

1. *Tubercles and Tuberculous Adhesions diffused over the Peritonæum.*
2. *Masses of Tubercles and Interstices inextricably matted together.*
3. *Ulcerations of Peyer's and Brunner's Glands, and Tuberculous Enlargement of the Mesenteric Glands.*
4. *Various Tuberculous Masses and Cavities, especially in the right Iliac Region, sometimes communicating with the Intestines.* *See* §§ 552—556.

III. ESO-GASTRITIS.

720. I. *The History.* Eso-gastritis is far more frequently an insidious and protracted than an acute disease.

721. II. *The Symptoms* are such as have been detailed § 654, in a protracted, or repeated, form: food and medicine, even of the mildest kind, are apt alike to disagree, inducing pain, sickness, vomiting, a sense of weight, or of dragging, &c. The evacuations are frequently pale and without bile. The strength and flesh fail.

722. A careful examination of the epigastrium, and a careful observation of the effects of food and of medicines, the recurrent nature of the attacks of pain and suffering, the condition of the bowels, &c. are the chief diagnostics of this disease, which is, I think, little known.

723. I have already expressed, § 655, my opinion that icterus is apt to be formed when the duodenum is involved in this disease. I know, however, that M. Rostan* is incredulous upon this point. With the icterus, tenderness and enlargement of the liver (from bilious congestion?) are apt to take place, with a disposition to anasarca.

724. III. *Effects of Remedies.* Enemata of warm water afford great relief, and constitute one of our chief resources in this disease.

725. IV. *The Morbid Anatomy* consists in softening, thinness, and perhaps destruction of the mucous membrane of some part or parts of the stomach, or this membrane becomes mammelated.

IV. ESO-ENTERITIS.

726. I. *The History.* This disease, like the eso-gastritis, generally occurs in an insidious and protracted form.

727. II. *The Symptoms* are intestinal pains and tenderness, and generally diarrhœa. The evacuations, carefully

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* Cours de Médecine Clinique, tome ii, p. 447.

inspected, frequently display appearances of mucus, or pus, or even blood. There are slight fever, debility, and wasting of the flesh.

728. III. *The Morbid Anatomy* consists of injection, discoloration, softening, and perhaps ulceration of the mucous membrane of the intestine, in various parts of its course.

V. SCIRRHUS.

729. I. *The History.* No disease can be more insidious than Scirrhus of the Stomach, unless it be so situated as to interfere with the ingress or egress of the food. It usually occurs in the *middle* periods of life, being rarely seen in early youth or extreme age. It can seldom be traced to any particular cause.

730. II. *The general Symptoms* have been slightly sketched, § 323. They consist in a peculiar pale, sallow, worn countenance, expressive of suffering, usually with a gradual emaciation. The contrast of symptoms drawn §§ 313, 314, must be usefully studied in reference to the diagnosis of this affection.

731. III. *The local Symptoms* depend entirely upon the situation and mechanical effect of the disease. Its principal seats in the stomach are

1. *The Cardia.*
2. *The Pylorus.*
3. *The Body of the Stomach.*

732. 1. Scirrhus of the cardia induces pain and difficulty in swallowing, which slowly but daily increase. The food is apt, late in the disease, to accumulate in the lower part of the œsophagus, and to be rejected, by a peculiar effort, not dissimilar in mechanism to that of vomiting,* without having

* See a Memoir by the Author, in the Journal of the Royal Institution for June, 1828.

ever reached the cavity of the stomach, together with much mucous or glairy fluid.

733. 2. Scirrhus of the pylorus is denoted by an accession of pain, oppression, and other inconvenience, some time after eating, which increase gradually until the stomach relieves itself by vomiting. The mornings are comparatively easy, and the evenings full of suffering from the alternate, comparative empty, or replete, condition of the stomach.

734. 3. In Scirrhus of the body of the stomach, which is usually seated at the small curvature, there are only the general symptoms of disease and of scirrhus, §§ 313, 323, with ardor, gastrodynia, uneasiness, &c. at various periods after eating.

735. Besides the symptoms already detailed, it is important to notice the condition of the matters rejected from the œsophagus or stomach: these are mucus, pus, sanies, blood, &c., sometimes of extremely fœtid odor. It is also important to examine carefully and repeatedly for *tumor*.

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736. After these different parts of the stomach, the following are the principal seats of Scirrhus in the intestines:

1. *The Ileum.*
2. *The Colon, especially the ascending and descending.*
3. *The Rectum.*

737. Rarely seen in the first, much more frequently in the second, this disease occurs most frequently in the last of these situations.

738. IV. *The local Symptoms* vary with the seat of the disease:

739. 1. Scirrhus of the ileum is denoted by local pain, tenderness, and tumor, augmented some time after eating, and eventually attended by vomiting, paroxysms of pain, and symptoms of obstruction. The sufferings are usually augmented after eating, or towards evening.

740. 2. Scirrhus of the colon is attended by similar symptoms and by pains of the kind designated by the term *colic;* whilst the sense and symptoms of obstruction are more dis-

tinct, and the evacuations are more marked by mucus, pus, or blood. The bowels become more and more constipated—obstructed. The symptoms are apt to be aggravated in paroxysms of augmented obstruction. The course of the colon, and especially the ascending and descending portion, must be carefully, repeatedly examined for *tumor*.

741. 3. Scirrhus of the rectum is accompanied by *similar* symptoms, which, even when alone, should always lead to an examination *per anum*. There are afterwards local pains, great difficulty in passing the fæces, gradually augmented; discharges at first of mucus and afterwards of fœtid sanies, pus, or blood; tumors at the verge of the anus, &c. the occurrence of any one of which should also lead to an attentive examination.

742. *The Morbid Anatomy* of Scirrhus consists, according to M. Andral, in hypertrophy of the cellular membrane. The part affected is indurated, thick, and traversed by hard, white bands, which separate the muscular fibres. At length the mucous membrane and the peritonæum are involved in a change of structure which was originally confined to the cellular membrane. Eventually ulceration takes place, and an open cancer is formed, with rugged surfaces, fungous growths, frightful chasms, &c.

743. In this place I must draw the attention of my young reader to other cases of *disease of the rectum*, which it will be his office to distinguish from Scirrhus. They are principally these:

1. *Common Stricture.*
2. *Hæmorrhoids.**
3. *Fistula.*
4. *Impacted Fæces.*
5. *Biliary or Intestinal Calculus.*

They are distinguished by a careful *examination*. But I am

* Hæmorrhoids, as well as varicose veins, frequently arise from the compression of the gravid uterus, or of a loaded intestine, and other causes.

sorry to say that it has become necessary to distinguish diseases of the rectum from *no disease of the rectum!* A friend of mine—and I have heard of similar events—had a rectum bougie passed daily, whilst at Bath, from suspicion of stricture or other disease of the rectum. I was persuaded that there was *no disease.* I took him to Sir Charles Clark, who confirmed my opinion. The bougie was omitted, and all the symptoms vanished, with much of real distress, and much more of groundless and unnecessary apprehension.

VI. ENCEPHALOSIS.

744. I. *The History.* This disease is scarcely attended by any symptoms until it manifests itself by a tumor, perceptible on examination, or by its effect upon adjacent organs. §§ 320, 620.

745. II. *The Symptoms* of Encephalosis of the abdomen are, therefore, a tumor, less sensible on pressure than inflammation, less marked by general symptoms than tubercles.

III. THE CHRONIC DISEASES.

I. DYSPEPSIA.

746. I propose, in this place, merely to call the attention of my readers to several prominent forms of dyspepsia. They are principally

1. *Gastrodynia.*
2. *Pyrosis.*

747. 1. *Gastrodynia* may occur either with an empty stomach or after eating: in the former case, it is usually conjoined with acidity; in the latter, it follows almost immediately upon taking food. In both cases it is chronic, and distinguished from Eso-gastritis by producing little effect on the general system.

748. 2. *Pyrosis* consists in the sudden rejection of a quantity of a saltish fluid from the stomach, accompanied by ardor, or acidity. Like gastrodynia, it is chronic, and induces little effect on the system at large.

II. INTESTINORUM TORPOR.

749. By this term I wish to designate a strange disposition in the large intestines to form scybalæ and to retain them in its cavity, whilst there may be constipation, or a daily insufficient evacuation of the bowels. The effect of this disposition in inducing a variety of ailments is very imperfectly understood.

III. VERMES.

750. There are no symptoms which positively indicate the presence of worms in the adult. We can only suspect their existence,—give a cathartic, and examine the evacuations.

IV. THE SYMPTOMATIC AFFECTIONS.

I. ARTHRITIS.

751. The stomach is frequently the seat of pain and disorder in suppressed Gout. The case is distinguished from other gastric affections only by this point of its *History*.

II. HYSTERIA.

752. In Hysteria, the surface of the abdomen is frequently so tender, as to lead to the suspicion of peritonitis. The case is distinguished by the history, and by the occurrence of other unequivocal symptoms of Hysteria; the pain is induced by the slightest touch, but it is not proportionately increased on making deeper pressure. If blood be taken, there is early syncope.

CHAPTER V.

THE DIAGNOSIS OF THE DISEASES OF THE LIVER, PANCREAS, AND SPLEEN.

753. Few diseases require the attention of the physician more than those of the Liver; the diseases of the Spleen, and especially of the Pancreas, are too obscure to possess equal interest.

754. The Liver is the central organ of so many systems,—the hepatic artery, the vena portæ, the biliary ducts, the hepatic vein,—that its diseases, minutely considered, must be equally various and important. The profession will soon possess a treatise on this subject, of great value and novelty, by Mr. Kiernan, who has made many interesting discoveries in the minute anatomy and pathology of this organ.

755. It is my object to place before my reader, as usual, a *practical* view of the diagnosis of hepatic diseases. The Liver, like every other organ, is subject to inflammation. It is exposed to venous congestion from the interrupted return and flow of blood in diseases of the heart, § 587, 4; and it is subject to bilious congestion from obstructed gall-ducts. This organ is subject to other diseases which are common to it with se-

veral other viscera, as encephalosis, scirrhus, tubercles, hydatids; and it is exposed to others, peculiar to itself, viz. those termed the *fatty liver* and the *cirrhosis*, § 372, 3.

756. M. Andral* correctly observes—"Il n'est presqu' aucune des altérations du foie qu'on n'ait désignées sous le nom d'hépatite. A mon avis, il n'en est non plus presqu' aucune qui ne puisse résulter d'une irritation qui a eu pour premier effet de déterminer une hyperémie du foie. En veut-on une preuve évidente? quatre individus éprouvent sur la région même du foie une violence extérieure: chez l'un, un abcès se développe dans le foie; chez le second, cet organe devient cancéreux; chez le troisième, il se remplit d'hydatides; et chez le quatrième, il s'atrophie. Dans ces quatre cas l'irritation a été manifestement le point de départ des altérations du foie. Mais quel a été son rôle: elle a dérangé le mode normal de nutrition du foie: là s'est bornée son influence, la prédisposition de l'individu a fait le reste. D'un autre côté, je ne sache pas une altération de nutrition ou de secrétion du foie, pas même une collection de pus dans son parenchyme, qui puisse être considérée comme ayant sa cause nécessaire dans un travail antécédent d'irritation; je n'en connais pas une de laquelle on puisse dire qu'une hyperémie en a nécessairement précédé la formation."

757. M. Cruveilhier makes a similar observation:—"Une contusion ou une commotion du foie a été, dans ce cas (de kystes acéphalocystes), la cause évidente de la production organique: je ne connais pas de lésion dans l'organisation qui ne puisse reconnaître une cause semblable. La contusion et la commotion développent, dans les parties qui en sont le siége, des modifications de vitalité telles, que toutes les formes d'altération organique, soit aiguë, soit chronique, peuvent en être le résultat."†

758. No organ is so susceptible of changes of size and of

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* Anatomie Pathologique, t. i. p. 606.

† Anatomie Pathologique, iii. livraison.

form. Under the influence of the compression from ascites, the Liver sometimes shrinks greatly; and it is sometimes marked by the tight lacing of stays. In case of enlargement, it may encroach upon the thorax, the left hypochondriac, or the right iliac, region.

759. To the preceding list, must be added obstruction of the gall-ducts, and it is complete for all practical purposes.

760. The diseases of the Pancreas and of the Spleen will occupy little space, for their diagnostics are almost unknown.

ARRANGEMENT OF THE DISEASES OF THE LIVER, PANCREAS, AND SPLEEN.

I. DISEASES OF THE LIVER.

I. Inflammation.

1. *Injection.*
2. *Softening.*
3. *Induration.*
4. *Enlargement.*
5. *Abscess.*

1. *Solitary. This may open*

1. *Externally.*
2. *Into the Gall-Bladder or Ducts.*
3. *Into the Stomach or Intestines.*
4. *Into the Bronchia.*
5. *Into the Abdomen.*
6. *Into the Pleura.*
7. *Into the Pericardium.*

2. *Numerous.*

II. Congestion.

1. *Venous.*

1. *Causes.*
2. *Effects.*

II. *Bilious.*

1. *Causes.*
2. *Effects.*

III. Encephalosis.

1. *Solitary.*
2. *Diffused.*

IV. Scirrhus.

1. *Solitary.*
2. *Diffused.*

V. Tubercles.

VI. Hydatids. These may escape

1. *Through the Abdominal Parietes.*
2. *Through the Stomach or Intestine.*
3. *Through the Bronchia.*
4. *Into the Peritonæum,*
5. *Into the Pleura.*

VII. Fatty Liver.

VIII. Cirrhosis.

II. DISEASES OF THE BILIARY DUCTS.

Obstruction.

1. *By Inflammation.*
2. *By Calculi.*
3. *By External Pressure.*

III. DISEASES OF THE PANCREAS.

IV. DISEASES OF THE SPLEEN.

I. DISEASES OF THE LIVER.

1. INFLAMMATION.

761. I. *The History.* Inflammation of the Liver may arise from ordinary causes, as exposure to wet and cold; from blows or falls; and from constitutional causes, as disease of some other organs.

762. II. *The Symptoms* consist in local pain, augmented by pressure, and by percussion; sometimes the border of the organ is to be felt; sometimes there is jaundice, ascites, or anasarca. There may be little febrile action; pain of the right shoulder does not belong to hepatitis; but the condition of the stomach and bowels is generally deranged, and there are anorexia, nausea, sickness, constipation, and a colorless state of the fæces, and the urine is frequently high colored.

763. III. There is considerable tolerance of loss of blood, and this becomes a useful diagnostic.

764. IV. *The Morbid Anatomy* consists of

1. *Injection.*
2. *Softening.*
3. *Induration.*
4. *Enlargement.*

But, besides these states, there is a fifth which requires particular notice. This is

5. *Abscess.*

1. *Solitary Abscess.*

765. *The Symptoms* of this termination of hepatitis occa-

sionally resemble *Intermittent Fever;* but in other cases they are very obscure, and the occurrence of suppuration is not suspected until the abscess points or the pus appears externally. The pus may issue by an opening

1. *In the Hepatic Region.*
2. *Into the Gall Ducts.*
3. *Into the Stomach or Intestines.*
4. *Into the Bronchia.*

766. This appearance of pus is known to arise from hepatic abscess, by being associated with the previous history and symptoms. The abscess sometimes bursts into

1. *The Peritonæum,*
2. *The Pleura, and*
3. *The Pericardium;*

an event which can only be conjectured from the occurrence of some sensation, as of rupture, and by the appearance of symptoms of inflammation of one or other of these several membranes.

2. *Numerous Abscesses.*

767. This form of hepatic disease occurs, like similar abscesses in other parts, in cases of *Phlebitis.*

II. CONGESTION.

1. *Venous.*

768. Venous Congestion of the Liver usually arises from disease of the heart impeding the flow of blood from the hepatic vein. It leads to enlargement of the Liver, to dropsy, and perhaps to icterus. See § 587.

2. *Bilious.*

769. Bilious Congestion of the Liver arises from obstructed gall-ducts, and leads to enlargement of the Liver, to dropsy, and emaciation, and is attended by icterus. See § 723.

III. ENCEPHALOSIS.

770. I. *The History.* This disease is extremely insidious, and ultimately induces symptoms only by its size and pressure.

771. II. These *Symptoms* are uneasiness and oppression in the epigastric and hypochondriac regions, augmented by food, relieved by purgatives. The countenance is *pallid* and thin, and there is general and progressive emaciation, with ascites and anasarca, and very frequently with icterus. The enlargement of the Liver, and, at length, even its irregularities of surface, are felt on a careful examination.

772. II. *The Symptoms* are sometimes merely those of hypochondriasis. A careful examination should be made in every such case.

773. III. *The Morbid Anatomy* consists in the presence of Encephaloid Tubera, which may be few in number, and confined to the Liver, or, what is more frequent, *diffused* over this and various other organs. These tumors compress, in different instances, a large blood-vessel, a large gall-duct, the vena portæ; inducing, respectively,

1. *Partial Atrophy.*
2. *Icterus.*
3. *Ascites; Anasarca.*

774. The ascites is probably occasioned, in some instances, by irritation of the portions of the peritonæum adjacent to the hepatic tumor or tumors; and effusion into the thorax has arisen in the same manner. Other diseases, as of the heart and of the lungs, are also occasionally induced by hepatic encephalosis, besides the occurrence of the same morbid change in various organs. In fact, few diseases, as I have observed already, are single or simple.

IV. SCIRRHUS.

775. *The Symptoms* of Scirrhus of the Liver are similar to those of Encephalosis of this organ. The countenance is rather *sallow* than pallid, and there is earlier emaciation.

V. TUBERCLES.

776. Tubercles of the Liver are characterized by no symptoms except those of tubercles, and of disease of the Liver, in general.

VI. HYDATIDS, OR ACEPHALOCYSTS.

777. This affection may be suspected when there is enlargement of the liver, unequally developed, perhaps circumscribed, and then perhaps fluctuating; icterus, ascites, and anasarca, may be superadded.*

778. Hydatids of the liver may be expelled through

1. *The Intestinal Canal,*
2. *The Bronchia;*

or they may escape into

1. *The Peritonæum,*
2. *The Pleura;*

and then there is sudden acute inflammation.

779. *The Morbid Anatomy* consists of the various distortion and enlargement of the liver by cysts and hydatids.

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* In this and similar cases a puncture may be made by a minute trocar, in order to ascertain the nature of the contents of the tumor. This manœuvre was recommended, in external tumors, by the late Mr. Hey of Leeds. I believe I was the first to extend the experiment to cases of effusion into the thorax,* an operation which ought to have been noticed, p. 297.

* See the first edition of the Diagnosis, pp. 203; 204.

VII. THE FATTY LIVER.

780. In this case the liver is enlarged, leaves a layer of oily substance on the scalpel, renders paper oily and transparent when warmed, and burns in the flame of a candle when its aqueous particles are evaporated; it sometimes swims upon water. It is unattended by icterus. It occurs principally in

Phthisis. § 552.

VIII. CIRRHOSIS.

781. This disease consists of diminution and deformity of the liver, which is dense, granular, wrinkled, and, as its name imports, of a yellow color. It is uniformly attended by ascites, § 372, but without icterus.

II. DISEASES OF THE BILIARY DUCTS.

782. The only disease of the Biliary Ducts which can be detected during life is

OBSTRUCTION;

and this may arise from a great variety of causes, as

1. *Thickening of the Ducts themselves.*
2. *Calculi; or viscid Bile.*
3. *The Compression of Hepatic Tumors.*
4. *The Compression of a Tumor of some adjacent Organs.*
5. *Inflammation of the Duodenum.*
6. *A loaded state of the Colon.*

783. *The Symptom* common to *all* these cases is *Icterus;* those peculiar to *each* have been already detailed, with the exception of

BILIARY CALCULI.

784. *The History and Symptoms.* Biliary Calculi induce no symptoms except when they obstruct the hepatic or common ducts; they may long exist in the gall bladder or cystic duct without symptoms. In the former case they may induce *sudden paroxysms*, or confirmed suffering, of the kind about to be described.

785. The paroxysm consists of the most excruciating pain, and perpetual sickness and vomiting; these are frequently *preceded* by *rigor* and *followed* by *icterus;* the bowels are constipated, the fæces pale, and the urine scanty and deep-colored.*

786. The *continued pain* is attended by tenderness, extending from the region of the gall-bladder over the hepatic region, and by icterus; and eventually the liver itself becomes affected with inflammation, bilious congestion, and enlargement.

787. There is a fact, a reference to which is essential to the completion of the diagnosis of diseases of the liver and its appendages: it is that of

Rupture of the Gall-Bladder.

788. Such cases are mentioned by many authors, and, recently, by M. Cruveilhier and M. Andral, and such a case lately occurred in the practice of my friend Mr. Cox.

789. *The Symptoms* are those of the most sudden and acute *Peritonitis:* excruciating pain and tenderness; sickness; sinking; &c. and, in a word, the symptoms observed in perforation of the stomach or intestine; § 707.

III. DISEASES OF THE PANCREAS.

790. The Pancreas is sometimes found of a redder color,

* It is extremely important to remark that precisely similar symptoms have originated from a disordered and loaded state of the colon.

and denser texture, than natural, or affected by suppuration. It may be scirrhous or compressed by scirrhus. But *the Symptoms* are unknown, and, to this day, the diseases of the Pancreas are of as little moment in a therapeutical point of view, as they are rare in their occurrence.

IV. DISEASES OF THE SPLEEN.

791. The diseases of the spleen are exceedingly obscure: they may be viewed as only forming a part of a previous disease, as

1. *Typhus.*
2. *Intermittent.*
3. *Purpura, &c.*

or as constituting a primary disease, as

I. Inflammation, inducing
   1. *Changes in volume, consistency, color;*
   2. *Suppuration.*
      1. *Diffused.*
      2. *Abscess.*

II. Organic Disease.
   1. *Tubercles.*
   2. *Encephalosis.*
   3. *Cysts.*
   4. *Hydatids, &c.*

1. INFLAMMATION.

792. Inflammation of the Spleen is usually attended by obscure pain and scarcely any symptoms. It has been supposed to give origin to phenomena of an *aguish* or *intermittent* character. It is principally to be detected by a careful *examination:* there is sometimes tenderness, sometimes a perceptible tumor; sometimes without tumor, the sound of the posterior

and lowest part of the left side of the chest is dull, though the respiration is perfect.

II. ORGANIC DISEASE.

793. Organic Disease of the Spleen is easily detected when there is enlargement, by which alone, indeed, it seems to affect the general system.

CHAPTER VI.

THE DIAGNOSIS OF THE DISEASES OF THE URINARY ORGANS.

794. Few diseases are more frequent, or more practically important, than those of the Urinary Organs, viewed as primary, and as secondary; or as causes, and as effects, of other diseases.

795. Organic disease of the kidney sometimes leads to the suppression of its secretion, and this to comatose and other diseases; in other cases, such disease leads to albuminous urine and to dropsy.

796. Derangement of the stomach equally leads to derangement of the functions of the kidney, and to the deposit of various calculi, and their train of painful and dangerous effects.

797. In other instances, the function of the kidney becomes deranged independently of previous derangement of other organs, or of organic change in the kidney itself, but probably from hereditary predisposition, as in Diabetes.

798. All diseases modify the secretion of the urine, from Fever to those affections which must still be acknowledged, and which are termed Nervous. The periods of digestion; each kind of diet, of beverage, and even of water; each change of the temperature and moisture of the atmosphere; has its effect upon the secretion of the kidney. Bodily exercise and certain mental emotions, also have an obvious and immediate influence in diminishing or augmenting the secretion of urine.

799. It can no longer, therefore, be matter of surprise that nephritic affections are so frequent; and we have still to add

to the list, those which affect the bladder, the prostate, and the urethra, and the general mucous lining of the urinary organs.

800. All these are affections of one system, and one with the general system

801. It will be my object, as usual, in this Chapter, to disencumber the subject of useless, or almost useless, refinements, and to present to the young practitioner, as simple and practical a view of the subject as possible; referring to the incomparable treatises of Dr. Prout and Mr. Brodie for further information of a minuter kind.

ARRANGEMENT OF THE DISEASES OF THE URINARY ORGANS.

I. THE DISEASES OF THE KIDNEY AND URETER.

I. THE ORGANIC.

I. Inflammation.

1. *Injection.*
2. *Enlargement.*
3. *Softening; Induration.*
4. *Suppuration.*

1. *Abscess.*
2. *Purulent Infiltration.*

II. Gravel and Calculus.

I. *The Diatheses and kinds of Deposit and Gravel.*

1. *The Lithic.*

1. *With Yellow, Red or Lateritious, or Pink Deposits of Lithate of Ammonia.*
2. *With the formation of Red Gravel, or Crystals of Uric or Lithic Acid.*

2. *The Phosphatic.*
   1. *With the formation of White Gravel, or Crystals of Phosphate of Magnesia and Ammonia.*
   2. *With the White Sediment of the mixed Phosphates of Magnesia and Ammonia, and of Lime.*

II. *The different kinds of Calculus.*
1. *The Lithic or Uric Acid; or the Light-brown.*
2. *The Triple Phosphate of Magnesia and Ammonia; or the White.*
3. *The Mixed Phosphates of Magnesia and Ammonia, and of Lime; or the Fusible.*
4. *The Oxalate of Lime; or the Mulberry.*
5. *The Alternating.*

III. Granulated Kidney.

Effects:

1. *Albuminous Urine.*
2. *Dropsy;* &c.

IV. Organic Diseases.

1. *Cysts.*
2. *Encephalosis.*
3. *Tubercles.*
4. *Hydatids.*
5. *Matière Colloide.*

II. THE FUNCTIONAL.

I. Suppression of Urine.

1. *Causes.*
2. *Effects.*

II. Diabetes.

III. Morbid Secretions.

1. *Albumen.*
2. *Excess of Urea.*

IV. Morbid Admixtures.

1. *Mucus.*
2. *Pus.*
3. *Blood.*

II. THE DISEASES OF THE BLADDER, PROSTATE, AND URETHRA.

I. OF THE BLADDER.

I. Inflammation.

1. *Injection.*
2. *Ulceration.*

II. Calculus.

III. Nervous Affections.

1. *Irritability.*

1. *Immediate.*
2. *Sympathetic.*

2. *Paralysis.*

IV. Retention of Urine.

II. OF THE PROSTATE.

I. Inflammation.

1. *Tenderness.*
2. *Enlargement.*
3. *Abscess.*

II. Calculus.

III. OF THE URETHRA.

I. Stricture.

Effects.

II. Sympathetic Stricture.

I. THE DISEASES OF THE KIDNEY AND URETER.

I. THE ORGANIC.

I. INFLAMMATION.

802. I. *The History.* The *causes* of Nephritis may be constitutional, as *gout* or *rheumatism;* seated in the kidney itself, as calculus; external violence, as a fall, a blow, violent riding; or exposure to wet and cold; some medicines, as turpentine; &c. The attack of Nephritis may be acute, insidious, or chronic; a frequent effect is the formation of a calculus; and, through its medium, *gout* and *calculus* are frequently connected.

803. II. *The Symptoms* are local pain and tenderness. These are felt on pressure, or percussion; or if the patient makes a quick movement, or experiences a shock, as in making a false step in walking.

804. The examination is best made by placing the patient accurately on the back, and pressing the fingers between the short ribs and the ilium, the thumb being opposed to them upon the corresponding part of the abdomen: in this manner the kidney is really between the thumb and fingers, and can be examined most distinctly, and pain and tumor are readily detected; if the patient be not in bed, pain and tenderness are frequently detected by *percussion.*

805. With these symptoms are usually conjoined, fever; nausea, and sickness, retching and vomiting; colicky pains, constipation; pain in the loins, extending into the iliac region, in fact along the ureter; symptoms of irritation of the bladder or cervix; various morbid appearances of the urine, as deep color, fœtor, deposits, mucous, puriform, sanguineous admixtures.

806. III. *The Organic Changes* in Inflammation of the kidney are

1. *Injection;*
2. *Enlargement;*
3. *Softening, or Induration;*
4. *Suppuration, assuming the forms of*
    1. *Abscess,*
    2. *Infiltration.*

807. *The Symptoms* of *Abscess* are rigors, fever, and perspiration, in irregular paroxysms, resembling *Intermittent*, or *Hectic*. Mucous or puriform sediments are observed in the urine, which is frequently deep-colored, and of an ammoniacal odor; and there is great irritation of the bladder and urethra.

808. Nephritic Abscess may point and burst externally; or it may penetrate and open into the abdomen, and induce sudden, severe, and fatal peritonitis.

809. Nephritis, however confined to one kidney at first, usually invades both in its course.

II. CALCULUS.

810. I. *The History.* Calculus is frequently the *cause*, and as frequently an *effect*, of the disease last noticed; it is the latter especially, when *Gout* or *Rheumatism* is the cause of Nephritis.

811. But calculus is apt to be formed in the kidney, in the circumstances of those constitutional derangements which have been denominated the *calculous diatheses*, of which the principal are

1. *The Lithic.*
    1. *With Yellow, Red, or Lateritious, or Pink Deposits of Lithate of Ammonia.*

2. *With the formation of Red Gravel, or Crystals of Uric or Lithic Acid.*

2. *The Phosphatic.*

1. *With the formation of White Gravel, or Crystals of Phosphate of Magnesia and Ammonia.*
2. *With the White Sediment of the mixed Phosphates of Magnesia and Ammonia, and of Lime.*

812. 1. The *first* of these is associated with high living, dyspepsia and gout; and is denoted by an *acid* state of the urine, readily detected by litmus paper, red, lateritious, or pink deposits of lithate of ammonia, and afterwards by the appearance of crystals of uric or lithic acid, or the *red Gravel*. This diathesis prevails in childhood, and about the age of forty.

813. There is a constant disposition to change from the lithic to the phosphatic diathesis: the urine becomes pale; there is a disposition, from slight causes of disorder, to deposit mixed lithic and phosphatic sediments, or an iridescent *pellicle* of triple phosphate forms upon its surface. At length the urine becomes *alkaline*, and crystals of the triple *phosphate of magnesia and ammonia* are formed, constituting the *white gravel*.

814. Under the influence of these two diatheses, the lithic acid calculus and the triple phosphate calculus are formed. But, besides these, there are two other kinds of diathesis and of calculus to be briefly noticed in this place:

815. 1. The crystals of the triple phosphate are apt to be changed for a pulverulent deposit of that phosphate mixed with the phosphate of lime; and the same mixture constitutes the *fusible calculus*. The constitutional and nephritic symptoms are extremely severe; the urine soon putrefies, with the evolution of ammonia. A fall upon the back, an injury done to any part of the urinary organs, may excite this diathesis and its

effects; and all the other forms of calculous diathesis tend to pass into this.

816. 2. The other form of diathesis is that in which the *mulberry calculus*, or that consisting of *oxalate of lime* is formed.

817. II. *The Symptoms* of Nephritic Calculus, independent of Inflammation, are excruciating pain in the region of the kidney and along the ureter; incessant nausea, vomiting, and retching; pain and retraction of the testis; pain in the inside of the thigh; dysury; strangury. The urine is high-colored; acid or alkaline; mixed with mucous, puriform, or sanguineous deposition.

818. The paroxysm is of various severity and duration: gravel or a small calculus may pass, with perfect relief; or there may be the transition from *irritation* into *inflammation*.

819. III. *The Varieties* of Calculus may be thus enumerated and arranged for practical purposes:

1. *The Lithic or Uric Acid; or the Light-brown.*
2. *The Triple Phosphate of Magnesia and Ammonia; or the White.*
3. *The Mixed Phosphates of Magnesia and Ammonia, and of Lime; or the Fusible.*
4. *The Oxalate of Lime; or the Mulberry.*
5. *The Alternating.*

820. The last of these is the most interesting in a pathological point of view: the *nucleus* in such calculi is most frequently lithic acid, rarely the phosphates; these, on the contrary, generally form upon some nucleus, and are seldom covered by other depositions. Indeed Dr. Prout has deduced, from his accurate observations, the following *law*, upon this subject: "that a decided deposition of the mixed phosphates is not followed by other depositions." The *tendency*, in the *diathesis*, deposits, gravel, and calculous depositions, is always *from* the lithic *to* the phosphatic.

III. GRANULATED KIDNEY.

821. I think it important to refer, once more, in this place, to the important researches and discoveries of Dr. Bright on this disease and its consequences: viz.

1. *Albuminous Urine.*
2. *Dropsy, &c.* *See* §§ 374—398.

IV. ORGANIC DISEASE.

822. The principal organic diseases of the kidney, are

1. *Encephalosis.*
2. *Scirrhus.*
3. *The Matière Colloide.*
4. *Cysts.*
5. *Hydatids.*

823. *The Symptoms* consist in some degree of tenderness; in tumor; in various *irritative* effects upon the bladder and the acts of micturition; and in deranged appearances of the urine.

II. THE FUNCTIONAL DISEASES.

I. SUPPRESSION OF URINE.

824. I. *The History* involves that of some antecedent disease, of which this is, in truth, but a *symptom*, yet so serious and fatal a symptom, as to deserve peculiar attention. That disease may be inflammation, or calculus, with their effects, and perhaps any form of organic disease of the kidney.

825. II. *The Symptoms.* The suppression may be partial or complete; its existence, its degree, and its distinction from *retention*, are determined, at once, by the *catheter*.

826. From whatever cause it may arise, suppression of urine, if continued, speedily induces serious symptoms. There

are fever, thirst, a taste of urine in the mouth, and the smell of urine in the perspiration; to these, nausea, vomiting, sometimes of matters having a urinous odor, and hiccup, succeed; and to these, dyspnœa, delirium, and eventually coma, and convulsions.

827. Having ascertained the existence of suppression, the next point in the *diagnosis*, that which directs the mode of treatment, is the identification of the original disease. This is to be done upon the principles detailed in the former part of this chapter.

828. III. *The Morbid Anatomy* consists in those morbid changes which constitute the *causes* of this affection, and in its *effects*, especially in inducing congestion, or effusion into the ventricles, of the brain.

II. DIABETES.

829. I. *The History.* This disease seems to be hereditary. Its accession is highly insidious, the first symptom which excites attention being the augmented secretion of urine.

830. II. *The Symptoms.* The pathognomonic symptom of Diabetes, is a saccharine state of the urine: the urine itself has a peculiar sweetish taste and smell; and, if dropped and dried upon linen or paper, it is glutinous and adheres to the fingers. There is urgent thirst, and the appetite for food is excessive; the mouth is clammy or parched, the tongue clean; the skin is harsh and dry, and without perspiration; the bowels constipated. There are pain and weakness across the loins; frequent micturition; diuresis; irritation of the orifice of the urethra; anaphrodisia. There are debility and emaciation; œdema; &c.

831. III. *The Complications.* If these symptoms be not checked, there succeed

1. *Hectic;*
2. *Phthisis;*
3. *Dropsy;*
4. *Apoplexy;*

832. IV. *The Morbid Anatomy* is still very imperfectly known.

III. MORBID SECRETIONS.

833. Dr. Prout describes the albuminous character of the urine as being of two kinds: the *chylous* and *serous;* the former being far more frequent than the latter; but the *mixed*, most frequent of all.

834. 2. In the *Chylous* variety, the albumen is greater after meals. There is frequent micturition, and increased secretion or *diuresis*. There are craving for food, and other of the symptoms of Diabetes.

835. 2. The *Serous* variety of this affection seems to be connected with augmented action in the system: the urine is not only albuminous, but occasionally mingled with blood itself; it is, in such cases, frequently associated with dropsy, and apt to terminate in apoplexy. See §§ 364; 376; &c.

Excess of Urea.

836. For the discovery of this form of disease, we are indebted to Dr. Prout. There is *diuresis*, and the case has been termed *diabetes insipidus*. The urine is generally pale and without sediment, and is only characterized by the deposit of crystals of urea on the addition of nitric acid.

837. There is a constant desire to void urine, both by night and day; there is sometimes dull pain in the back, at others, occasional irritation at the neck of the bladder and along the urethra. There is no affection of the skin, or pulse, no thirst, or inordinate appetite, or constipation. This affection seems, according to Dr. Prout, to be allied to those in which the urine is albuminous, or saccharine, or deposits the phosphates.

IV. MORBID ADMIXTURES.

838. The Morbid Admixtures with the urine are

1. *Mucus*,
2. *Pus*, *or*
3. *Blood.*

They must be regarded merely as *Symptoms*, and denote inflammation, or irritation, of the

1. *Kidney*,
2. *Bladder*, *or*
3. *Prostate*.

839. The *source* of these admixtures with the urine is determined by the other *symptoms* in the first two cases, and by a careful *examination* in the third. If the symptoms be principally *nephritic*, § 804, and the blood be diffused through the urine, the kidney is the probable seat of the morbid secretion or effusion; if *vesical*, § 846, with the discharge of blood only partially mixed with the urine, and towards the end of micturition, the bladder is probably that source.

840. But, besides these cases, *Hæmaturia* occurs in some other circumstances: it is frequent, for instance, in

1. *Typhus*,
2. *Purpura*,
3. *Scorbutus*,

841. In one case, the patient discharged large quantities of dark-colored blood, perfectly mingled with the urine, on every exposure to cold; the flow was as certainly arrested by the genial influence of warmth.

II. DISEASES OF THE BLADDER, PROSTATE, AND URETHRA.

I. OF THE BLADDER.

I. INFLAMMATION.

842. I. Acute Inflammation of the Bladder is rare. The repulsion of gonorrhœa sometimes induces this disease, as, in other instances, it excites inflammation of the prostate, or of the testis. Chronic Inflammation of the Bladder may arise from

1. *Stricture of the Urethra.*
2. *Disease of the Prostate.*

843. II. *The Symptoms* are a frequent desire to void urine, even when the bladder is empty, or strangury; and pain in the region of the bladder, especially on or after micturition. There is fever, with a frequent pulse, and a furred tongue. The urine deposits a mucous sediment, suggesting the designation *catarrhus vesicæ;* it adheres to the vessel, and is alkaline.

844. III. *The Morbid Anatomy* consists in redness and dark-color, and thickening of the mucous membrane, sometimes extending along the ureters and to the pelves of the kidneys, which are apt to be dilated, and to the substance of these organs, which are then enlarged, and perhaps become the seat of abscess or other disease. The internal membrane of the bladder is sometimes ulcerated. The bladder is sometimes perforated like the stomach, and the urine flows into the cavity of the peritonæum, or through a fistula into the rectum, or by an external opening.

II. CALCULUS.

845. I. *The History.* Vesical Calculi may be viewed in two points of light: that of

1. *The Nucleus.*
2. *The exterior portion.*

The most common *nucleus* is a nephritic calculus, which has passed through the ureter. But any foreign substance introduced into the bladder may become the nucleus of calculus: thus a hazel nut, a portion of a bougie, has formed the centre of calculous deposition. The exterior portion is most frequently the triple phosphate, or the mixed phosphates. The phosphates are frequently deposited by the influence of the alkaline mucus of the bladder, when this is very abundant, mingling with the urine.

846. II. *The Symptoms* vary in intensity exceedingly, according to

1. *The Size and Surface of the Calculus;*
2. *The Condition of the Bladder;*
3. *The Condition of the Urine.*

It is obvious that a small, smooth calculus must induce less uneasiness than one that is rough and large: the same calculus will induce very different effects upon a healthy and upon an inflamed vesical surface: acid, and especially alkaline urine, adds another source of irritation to that of the calculus itself.

847. 1. In the *milder* forms of this disease, there is a slightly increased desire to make water, and this act is followed by slight irritation at the cervix or along the urethra; the flow of urine is sometimes suddenly stopped, the calculus closing the orifice of the urethra; the urine is apt to be bloody after riding or other shaking exercise.

848. 2. In the *severe* forms of calculus, the calls to make water become sudden, frequent, urgent, and irresistible, and liable to be induced by any change of position. There is a characteristic sympathetic pain, on voiding urine, at the termination of the urethra and glans penis. There is pain in the region of the bladder, groins, &c.

849. The symptoms are aggravated still further, as the calculus enlarges, as the bladder inflames, and as the urine becomes alkaline. The desire to make water becomes urgent and incessant; the pains are extremely augmented, and the urine becomes ammoniacal, mucous, and sanguineous. There is sometimes spasmodic stricture of the urethra.

850. These symptoms, and indeed any one or more of them, will lead to the use of the *sound*, by which alone the existence of calculus is rendered *certain*, and its *size* and *character* are, in some degree, ascertained: if the calculus be of recent formation, and the urine acid, we have further reason to conclude that it consists of lithic acid; if, on the contrary, the symptoms have existed long and are severe, and the urine is alkaline, we may conclude that the phosphates have begun to be deposited.

851. III. *The Morbid Anatomy* of calculus relates principally to

1. *The Bladder itself;*
2. *The Kidney;*
3. *The Prostate.*

852. 1. There are the usual appearances of inflammation in the mucous membrane of the bladder.

853. 2. The pelvis of the kidney and the ureter are frequently augmented in size, and the kidney itself suffers variously from inflammation and other morbid changes.

854. 3. The prostate is sometimes enlarged; in a few cases it has become ulcerated, and then the sufferings of the patient are extreme.

III. NERVOUS AFFECTIONS.

1. *Irritability.*

855. I. In some cases there is an irritability of the bladder which is entirely *mental:* the attention is directed to this organ, and the necessity for emptying it, however imaginary, becomes imperative; it is repeated; it becomes constant. The patient cannot travel, cannot visit, on account of this mental irritability in regard to the bladder.

856. In other instances, the urine becomes acid, or alkaline; the bladder is unusually stimulated, and becomes irritable.

857. Irritability of the bladder occurs in nervous patients, and in old persons, without disease.

858. Irritability of the bladder is not unfrequently a *sympathetic* affection in

Disease of the Kidney.

2. *Paralysis.*

859. Paralysis of the bladder occurs from disease or injury of the brain and spinal marrow; in typhus; in old age. It leads to

IV. RETENTION OF URINE.

860. When retention occurs from paralysis, it is very fre-

quently accompanied by incontinence of urine, the cervix as well as the body of the bladder being affected. The region of the bladder should be carefully examined, and the *catheter* should be passed. Retention may also arise from

1. *Stricture.*
2. *Disease of the Prostate*, &c.

II. DISEASES OF THE PROSTATE.

I. INFLAMMATION.

1. *Acute.*
    1. *Swelling.*
    2. *Abscess.*
2. *Chronic.*

861. I. *The History.* In the *young*, the prostate is sometimes the seat of Acute Inflammation, with, or without, the repulsion of gonorrhœa. In the *old*, this gland becomes the seat of Chronic Inflammation.

1. *The Acute.*

862. II. *The Symptoms* of the *Acute* Inflammation of the Prostate, are pain and uneasiness, and a sense of fulness, at the cervix vesicæ, in the perinæum, and in the rectum; frequent desire to void the bladder, with more or less of obstruction, strangury, and tenesmus. There is distinct tenderness on pressure by the finger introduced into the rectum, with some enlargement; the bougie determines the absence of stricture.

863. If *Abscess* forms, these symptoms continue; the tenderness and swelling increase, and at length the abscess opens externally, into the urethra, &c. Meantime the dysury in-

creases, with perpetual calls to make water, and there are rigors, fever, quickened pulse, hot skin, furred tongue, &c. With this affection there is frequently extensive

Disorganization of the Kidneys.

2. *The Chronic.*

864. III. *The Symptoms* in Chronic Enlargement of the Prostate are irritability of the bladder, with some obstruction to the passage through the urethra. There are frequent calls to void urine, and some difficulty in doing so, and it perhaps dribbles away, especially during sleep, and is, at best, but imperfectly expelled. From various causes, the symptoms may be aggravated, and the difficulty of passing urine becomes extreme, or there is complete *retention*. In extreme cases, the vesical mucous membrane may slough, the powers of life fail, the tongue becomes dry and black, and there is complete, and fatal, coma.

865. IV. The following *Complications* of this disease are apt to take place:

1. *Abscess or Ulceration of the Prostate.*
2. *Inflammation of the Bladder.*
3. *The Formation of Vesical Calculi.*
4. *Disease of the Kidney.*

These affections seem to be sometimes continuous from, at others, excited by, the disease of the prostate. The urine may be augmented or diminished in quantity, *suppressed* or *retained*,* with the usual formidable or fatal symptoms. § 826. The bladder is very often marked by hypertrophy of the muscular fibres.

II. CALCULI.

866. Calculi of the Prostate produce similar symptoms.

* Mr. Brodie has treated this subject in the fullest and most able manner, in his Lectures on the Urinary Organs; Lecture v.

They are sometimes detected on examination with the finger or sound; sometimes fragments are discharged, and they are identified by their chemical composition, which consists principally of phosphate of lime, with animal matter.

III. DISEASES OF THE URETHRA.

I. STRICTURE.

867. Stricture may be suspected whenever there is difficulty in passing the urine, and this flows in a diminished, flattened, spiral, or split stream: it is ascertained, with its situation and extent, by means of the *bougie*, &c.

868. The principal *Effects* of Stricture are

1. *Irritability of the Bladder.*
2. *Retention of Urine.*
3. *Abscess in Perinæo.*
4. *Dilatation of the Urethra.*
5. *Disease of the Prostate.*
6. *Inflammation of the Bladder.*
7. *Hypertrophy of the Muscular Coat of the Bladder.*
8. *Disease in the Kidneys.*
9. *Disease of the Testis?*

II. SPASMODIC STRICTURE.

869. This affection may take place from exposure to cold, excess in wine, &c. There is difficulty or inability of micturition. This comes on suddenly, and sometimes goes off under the influence of sudorific and anodyne remedies. By repeated returns, it may lead to permanent stricture.

CHAPTER VII.

THE DIAGNOSIS OF THE DISEASES OF THE UTERINE ORGANS.

870. As the kidney, the bladder, the prostate, form a series or system of organs, the diseases of which mutually induce or aggravate each other; so do, in an especial manner, the uterus, the ovarium, the mammæ, &c. It is still an important inquiry how far remedies applied to one part of the series may relieve disordered actions in another. And the bond of connexion which binds these several organs amongst each other, and with the whole system, still affords a subject of deep interest for renewed inquiry. There is no question that the head is frequently affected by the condition of the uterine system. This is seen in nymphomania. On the other hand, phthisis disposes to conception, and this frequently checks the progress of phthisis. And cancer occurs simultaneously in the mamma and in the uterus. These connexions are still more readily traced in the physiology of the uterine system.

871. I shall take this opportunity of relating a characteristic anecdote of the late Dr. Gregory, for which I am indebted to Dr. Patterson. Dr. Gregory was consulted, in the town of Ayr, in the case of a lady who had repeatedly miscarried, with dreadful hæmorrhage, in spite of every remedial means which could be devised by the first medical authorities in Scotland. Dr. Gregory saw the patient on one of these occasions; he prescribed for the hæmorrhagy, and, when this had been arrested, and the patient had sufficiently recovered, he

examined the state of the mammæ, found them distended with milk, and directed a lusty infant to be applied, and nursed for nine months. The course of the uterine blood was directed into another channel. The lady became pregnant, the mother of a living child, and ultimately of a numerous family, her labors being unattended by hæmorrhagy!

872. This history bears the stamp of genius. The fact itself is full of interest, and perhaps of more extensive application than may appear at first sight. May not the disposition to uterine hæmorrhagy, in other instances, be prevented by attention to the due adjustment of the mode and period of lactation?

873. I have, throughout these sketches, called the attention to one important principle—that diseases are not simple—not the affections of single organs—but of *systems;* and I again take the liberty of repeating this remark in connexion with the diseases of the uterine organs.

ARRANGEMENT OF THE DISEASES OF THE UTERINE ORGANS.

I. THE DISEASES OF THE UTERUS.

I. THE ORGANIC.

1. Inflammation.
   - I. *Peritonæal.*
   - II. *Parenchymatous.*
     1. *Injection.*
     2. *Softening.*
     3. *Induration.*
     4. *Enlargement.*
     5. *Suppuration.*
        1. *Abscess.*
        2. *Infiltration of Pus.*
        3. *In the Uterine Cavity.*
        4. *In the Veins.*

III. *Of the Mucous Membrane.*
   1. *Amenorrhœa.*
   2. *Dysmenorrhœa.*
   3. *Formation of a False Membrane.*
   4. *Obliteration of the Uterine Orifices.*
   5. *Leucorrhœa.*

IV. *Of the Cervix Uteri.*

II. The Irritable Uterus.

III. Fibrous Tumors.
   1. *Under the Peritonæum.*
   2. *In the substance of the Uterus.*
   3. *Under the Mucous Membranes.*

IV. Cysts or Encysted Tumors.

V. Scirrhus—Cancer.
   1. *In the Cervix Uteri.*
   2. *Involving the Cervix Uteri and the Rectum, or the Bladder.*

VI. Corroding Ulcer.
   1. *Of the Cervix Uteri.*
   2. *Involving the Cervix and the Rectum, or the Bladder.*

VII. Encephalosis—Cauliflower Excrescence.

VIII. Polypus.

IX. Inversion.

X. Prolapsus.

XI. Elongated Cervix.

XII. Anteversion.

XIII. Retroversion.

XIV. Hydatids, &c. *distinguished from* Pregnancy *and its Complications.*

XV. Pelvic Tumors, &c.

II. THE FUNCTIONAL.

I. Amenorrhœa.

II. Dysmenorrhœa.

III. Menorrhagia.

IV. Leucorrhœa.

II. THE DISEASES OF THE OVARIA.

I. Inflammation.

1. *Injection.*
2. *Suppuration.*

II. Cysts or Encysted Tumor, *distinguished from* Ascites.

III. Fibrous and other Tumors.

IV. Encephalosis.

III. THE DISEASES OF THE MAMMA.

I. Inflammation.

1. *Tenderness and Tumor.*
2. *Abscess.*
    1. *Several.*
    2. *Deep-seated.*
    3. *Lacteal.*
    4. *Chronic.*

II. Tuberculous Swelling.

III. The Irritable Mamma.

1. *With Tumor.*
2. *With Ecchymosis.*

IV. Chronic Mammary Tumor.

V. Encysted, Hydatid, and other Tumors.

VI. Encephalosis.

VII. Scirrhus—Carcinoma.

1. *Of the Mammary Gland.*
2. *Of the Nipple.*
3. *Of the Skin.*
4. *Of the adjacent Lymphatic Glands.*
5. *Ulceration; Cancer.*

I. THE DISEASES OF THE UTERUS.

I. ORGANIC DISEASES.

I. INFLAMMATION.

1. *Peritonæal.*

874. Inflammation of the Peritonæal Coat of the Uterus is denoted by pain, and tenderness on pressure, and, if it be confined to this texture, by the absence of other symptoms.

2. *Parenchymatous.*

875. I. *The History.* Inflammation of the Parenchymatous Substance of the Uterus is very apt to be overlooked: it is sometimes induced by the sudden repression of the catamenia, from exposure to fatigue, wet, or cold; by marriage, &c.

876. II. *The Symptoms* are pain and tenderness in the region of the uterus, aggravated by pressure, and in paroxysms, and at each return of the catamenial period. There are a sense of fulness; perhaps some disposition to bearing down; frequent calls to make water; some degree of tenesmus, or uneasy feeling about the rectum. There is pain in the back and round the ilium, augmented by coughing, straining, or walking. Great relief is afforded by quiet, and the horizontal position.

877. III. *The Morbid Anatomy.* Besides these forms of Inflammation of the Uterus, this organ, in acute cases, undergoes a change of texture which leads to

Softening;

in more chronic cases, there is

Induration;

and, in other instances, there is

Suppuration.

The pus may exist in

1. *A distinct Abscess;*
2. *The State of Infiltration;*
3. *The Cavity of the Uterus;*
4. *The Adjacent Veins;*

and may escape

1. *Per Vaginam;*
2. *Into the Abdomen; &c.*

3. *Of the Mucous Membrane.*

878. Inflammation of the Mucous Membrane of the Uterus assumes several forms, which are respectively denoted by

1. *Amenorrhœa;*
2. *Dysmenorrhœa;*
3. *The Formation and Expulsion of a False Membrane;*
4. *Obliteration of the Uterine Orifices;*
5. *Leucorrhœa.*

879. 1. There seems to be no doubt that Amenorrhœa, which is a *symptom* in Chlorosis, Tubercle, and so many other diseases, may arise from Uterine Inflammation. The history and the other symptoms establish the diagnosis.

880. 2. Dysmenorrhœa is also, I am persuaded, a frequent effect of Inflammation of the Mucous Membrane of the Uterus.

881. 3. The False Membrane, sometimes periodically formed and expelled by the Uterus, can only be compared to that observed in Croup, and in some cases of Eso-enteritis.

882. 4. Obliteration of the Uterine Orifices may result from Inflammation, and prove the source of sterility.

883. 5. Lastly, one form of Leucorrhœa seems also to have its origin in Inflammation of the Mucous Membrane of the Uterus.

II. INFLAMMATION OF THE CERVIX UTERI.

884. I. *The History.* This affection is induced by the same causes as Inflammation of the Uterus itself.

885. II. *The Symptoms* consist in an exudation of *white mucus* from the cervix uteri, and tenderness *on examination* per vaginam, without tumefaction, or ulceration. The catamenia may be unaffected; or there may be dysmenorrhœa; or conception may be prevented. The act of passing indurated fæces, the shaking of riding, give pain. There may be some degree of irritation about the rectum, but more especially about the bladder, and there is frequently pruritus of the pudenda.

III. THE IRRITABLE UTERUS.

886. I. *The History.* Dr. Gooch has described an interesting case of Uterine affection under this designation, neither inflammatory in its nature, nor tending to disorganization in its course.* It seems to arise from cases similar to those enumerated § 875. It is very apt to be of a *protracted* character.

887. II. *The Symptoms* consist in pain in the region of the uterus, aggravated by every movement of the body, and relieved by quiet and the recumbent position; and in exquisite tenderness of the os uteri. There is irritability of the general system.

888. III. *Effects of Remedies.* There is great intolerance of loss of blood.

889. IV. *The Morbid Anatomy.* This affection does not tend to disorganization. The os uteri is only slightly swollen.

III. FIBROUS TUMORS.

890. I. *The History.* The Fibrous Tumor is generally slow in its progress, and unattended by constitutional symptoms.

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* This affection may be compared to the *Irritable Breast*, the *Hysteric Affection of the Joints*, &c.

891. II. *The Symptoms* are very obscure; but this disease is a frequent cause of *menorrhagia*,* even when long continued, a fact important to be generally known. In the progress of the disease the tumors become detectible on external examination, or on examination per vaginam, and per rectum.

892. III. *The Morbid Anatomy.* A fibrous texture sometimes occupies a great part of the uterus; the fibrous tumor may occur

1. *Immediately under the Peritonæum;*
2. *In the Substance of the Uterus;*
3. *Under the Mucous Membrane.*

IV. CYSTS OR ENCYSTED TUMORS.

893. This disease can only be ascertained when, by its size, it compresses some adjacent organ, as *the intestine, the bladder,* and so leads to a careful examination of the hypogastric region and per vaginam. It is unattended by constitutional symptoms. It is occasionally attended by a sense of *fluctuation.*

V. SCIRRHUS; CARCINOMA.

894. I. *The History.* This terrible disease usually occurs after thirty or forty. It is extremely insidious.

895. II. *The Symptoms* are *lancinating* pain, and local pains extending round the ilia and to the back, and even the loins; strangury; some vaginal discharge; perhaps repeated abortion; and some obvious inroads made upon the general health,—especially the complexion, the strength, the flesh, &c. Such circumstances should invariably lead to a careful examination *per vaginam.*

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* In one case there was profuse menorrhagia during twelve years of unfruitful marriage; the patient then became pregnant; the tumors were distinctly felt in the parietes of the distended uterus; parturition was accomplished well; but the fibrous tumors became inflamed and suppurated; and this led to a fatal puerperal disease.

896. All the symptoms become aggravated daily: the discharge becomes sanious, sanguineous, fœtid; the pains severer; the complexion paler, yellower; the loss of flesh and loss of strength greater; and a disposition to anasarca, and pains like those of rheumatism, supervene.

897. On examination, the os uteri is found swollen, hard, irregular in form, open and circular; afterwards, it is jagged from ulceration. The real state of things is, however, only to be correctly known by means of *the speculum.*

898. The *contiguous parts* are gradually involved in the disease, and a communication may be formed with *the rectum* or *the bladder.*

VI. THE CORRODING ULCER* OF THE CERVIX UTERI.

899. This disease occurs unaccompanied by tumor, hardness, or other appearances of scirrhus. There is a sensation of heat or burning. The catamenia yield to a yellow, or sanguineous, sanies. There is none of the lancinating pain observed in scirrhus. There are great pallor, debility, emaciation. The state of disease of the cervix is accurately ascertained only by the finger and the speculum *conjointly.*

900. Like scirrhus and carcinoma, the corroding ulcer sometimes penetrates into the rectum, or the bladder, affording an exit to the fæces, or urine, through the vagina.

VII. ENCEPHALOSIS.—CAULIFLOWER EXCRESCENCE.

901. This disease may affect the *body* or the *cervix* of the uterus. In the former case, it occasions a tumor, perceptible in the hypogastric region, which is rather rapid in its progress, and not unattended by constitutional symptoms. In the

* Sir C. M. Clarke, Diseases of Females, vol. i, p. 185. Baillie's Morbid Anatomy; Malignant Ulcer; Ed. by Mr. Wardrop, vol. ii, p. 323. Andral, Précis d'Anatomie Pathologique, t. ii, p. 683, &c.

latter case, it probably constitutes the disease which has been designated

The Cauliflower Excrescence.

902. I. This affection was first noticed by the late Dr. Clarke, and is described by Sir C. M. Clarke. It has been recently considered more fully by the late Dr. Gooch, who considers it as fungus hæmatodes, or Encephalosis.

903. II. This disease is the source of a watery discharge, and of frequent hæmorrhagies; it grows from the cervix uteri by a broad base, has a rough surface, and is insensible: if tied by ligature, it returns. In one case, it was readily removed in portions by the finger, without augmented hæmorrhagy. It destroys life by its malignant influence upon the constitution, and by the loss of blood. The patient becomes pallid and feeble, and gradually, or suddenly, sinks. The examination with the finger should certainly be aided by that by means of the *speculum*.

VIII. POLYPUS.

904. The first *Symptom* in Polypus is an alternate discharge of blood and serum, or a discharge of serum only, usually mistaken for *menorrhagia*, or *leucorrhœa*, without local pain.

905. In *all* such cases, an examination should be made *per vaginam*. In Polypus, a round, smooth, firm, *insensible* tumor is felt; and the next object is to ascertain its *attachment*: this is

1. *At the Fundus;*
2. *Beyond the Cervix;*
3. *Upon the Cervix.*

In the *first* case, the finger may be passed round the stalk; in

the *second*, it can be passed half round only; in the *third*, its origin is distinctly felt.*

IX. INVERSIO UTERI.

906. I. It occurred to Dr. W. Hunter, and it has occurred to others, to apply a ligature to the Inverted Uterus, mistaking it for Polypus! It occurred to Dr. Denman, and it occurred in Bartholomew's Hospital, to include a portion of the uterus in the ligature of a Polypus!

907. II. Inversion of the Uterus, in its *simple* form, is distinguished by its occurrence immediately after parturition, and by its *sensibility*.

908. III. When complicated with polypus, it is still distinguished by its *sensibility;* and if a ligature should ever give extreme *pain* or induce *vomiting*, it should immediately be removed, on the supposition of its having involved, or at least irritated, the uterus itself.

X. PROLAPSUS.

909. Prolapsus is distinguished by observing that the os uteri occupies its lowest part; by ascertaining that the tumor is *sensible;* and by the fact that it may be returned into its proper situation.

XI. THE ELONGATED CERVIX.

910. The existence of this form of Uterine Disease was first pointed out by Mr. Heming.

911. The os uteri is discovered upon the most protuberant

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* Much of the character and diagnosis of polypus may be learnt by the use of the speculum—by means of which the operation for its removal has become, in the hands of my friend Mr. Heming,* of infinitely greater facility and safety than before.

* See the forthcoming translation of the work of M. Dugès and Mme. Boivin, with Additions.

part of the tumor, through which a probe may be passed up six inches or more into the uterus. The elongated neck of the uterus may be traced with the finger. This form of disease occurs

1. *In Pregnancy;*
2. *In Hernia of the Bladder;*
3. *In Hernia of the Rectum;*
4. *In Ascites*, &c.

apparently from the influence of mechanical causes.

XII. HYDATIDS: ETC.

912. The cavity of the uterus is sometimes distended by substances foreign to it in its natural state: these are

1. *Hydatids.*
2. *Aqueous Fluid.*
3. *Air.*
4. *Calculus.*
5. *A Bony Mass.*
6. *A Dead Fœtus*, &c.
7. *Retained Catamenia.*

913. *The Symptoms* of Hydatids may be given, instar omnium. There is tumor in the region of the uterus, without *tenderness*, and without *regularity* in its progress. At length, with contractile uterine pain, a portion of hydatids, or, in other cases, of fluid, of air, &c. is expelled, and the disease is made manifest. There are, in the mean time, neither the constitutional symptoms of inflammatory, nor those of malignant disease: the pulse, the flesh, &c. are unaffected.

914. It is chiefly important to notice this disease, in order to institute a comparison between it and pregnancy, the subject to be shortly noticed.

XIII. ANTEVERSION.

915. I. *The History.* Anteversion of the Uterus arises generally from augmented fulness of the blood-vessels in some forms of Inflammation. Its exciting cause is frequently fatigue, effort, &c.

916. II. *The Symptoms* consist in obstruction to the evacuation of the bladder and of the rectum.

917. III. On *examination*, the os uteri is found pressing backwards upon the intestine, the fundus being thrown forwards upon the neck of the bladder.

918. Anteversion of the uterus may exist with far less inconvenience than Retroversion, and has, therefore, been far more frequently overlooked.

XIV. RETROVERSION.

919. I. *The History.* Retroversion most frequently occurs from the *third* to the *fourth* month of pregnancy. It may also occur from enlargement of the uterus from other causes; as polypus. It is frequently induced by effort, blows on the loins, &c. It is generally sudden in its accession.

920. II. *The Symptoms* are retention of urine, obstruction of the intestine, pain in the groins and loins, diminished hypogastric tumor; augmented symptoms of retention of the urine and of the fæces; &c.

921. III. On *examination per vaginam*, the finger passed upwards anteriorly can scarcely reach the os uteri; posteriorly its fundus is felt pressing upon the rectum and sacrum. On passing the finger into *the rectum*, the fundus uteri is felt still more distinctly pressing upon the intestine.

922. To *complete the diagnosis*, the uterus must be replaced. The *catheter* must be introduced; the rectum must, if possible, be relieved: the fingers are then to be introduced into the vagina or rectum, and the fundus uteri pressed gently upwards. The symptoms then cease.

XV. PREGNANCY

923. Is denoted by suppression of the catamenia, by sympathetic sickness, by gradually increasing tremor, first in the hypogastrium, then of the lower part of the abdomen, by a tumid and harder condition of the mammæ, with the development of the areola and follicles round the nipple, and by the movements of the fœtus.

924. It is by this *assemblage* of symptoms that pregnancy is ascertained: the sudden suppression of the catamenia; the sudden attacks of morning sickness; the regularly increasing *hypogastric* tremor; the peculiar change in the mammæ and areola; can scarcely occur together without pregnancy.

925. When, in addition to these symptoms, a tumor begins to be felt above the pubes; when the umbilicus, from being concave, becomes convex; when the movements of the fœtus are distinctly felt, by the hand applied to the hypogastrium; the existence of pregnancy is certain.

926. Lastly, when, on examination per vaginam, the cervix uteri becomes first less and less distinct, and then obliterated; when the body of the uterus is felt enlarged; when, the patient being in the erect position, the os uteri is raised quickly by the finger, and the fœtus made to float in the liquor amnii, and its fall is felt, there is no remaining doubt of pregnancy, even though the other criteria were obscure.

927. The most proper periods for making these various examinations will occur to the mind of every well-educated practitioner. But if more information be required than this brief paragraph affords, it will be found in the beautiful chapter by the late Dr. Gooch upon this subject.

928. *The Complications.* It is important to remark that Pregnancy may also be complicated with

1. *Disease of the Uterus;*
2. *Disease of the Ovarium;*
3. *Pelvic Tumors.*
4. *Retention of Urine;*
5. *Ascites.*

It will require the utmost attention to establish the full diagnosis in these complicated affections, since the distinction, when they occur in an isolated form, is not always perfectly easy.

XVI. PELVIC TUMORS, ETC.

929. Tumors may form in any part of the pelvis, and may complicate Pregnancy, or any of the preceding or subsequent forms of disease; in Pregnancy itself, the fœtus may die and yet be retained for a time: the diagnosis may thus be very obscure; it can, indeed, only be perfectly established by the most careful examination, *per vaginam*, *per rectum*, &c. with the precaution of previously emptying the bladder by the *catheter*, and the rectum by large *enemata*. It would be encumbering this work to *imagine* every possible case of such complications, and to lay down *Rules* for the diagnosis of *each*. Anatomical and pathological knowledge, and *good sense*, must guide us.

II. THE FUNCTIONAL AFFECTIONS.

930. The cases which I have enumerated as functional affections, are rather *symptoms* than real *diseases*, and ought, therefore, to be noticed in that relation. It may not be amiss, however, to state, in this place, under what circumstances they are most apt to occur.

I. AMENORRHŒA.

931. This affection occurs principally in

1. *Chlorosis.*
2. *Tuberculous Disease.*
3. *Inflammation of the Uterus.*

932. In the *first* of these, its accession is slow and gradual. § 235. In the *second*, its occurrence is generally sudden and all at once. § 318. In the *third*, its occurrence is also sudden, but it may be imperfect or irregular.

933. Amenorrhœa is also a well-known sudden effect of

exposure to damp or cold, or to mental emotions, during the flow of the catamenia.

II. DYSMENORRHŒA.

934. This affection results principally

1. *From Inflammation of the Uterus.*
2. *From Scybalæ retained in the Colon and Rectum.*

935. In the *former* case, there is occasionally the formation and expulsion of a layer of lymph. § 881. The *latter* affection has been briefly noticed § 749.

III. MENORRHAGIA.

936. The profuse flow of the catamenia depends chiefly upon two causes: the irritation of

1. *A Fibrous Tumor of the Uterus.*
2. *Scybalæ in the Colon or Rectum.*

937. The recurrence of the flow is frequently induced by fatigue or harass, bodily or mental.

IV. LEUCORRHŒA.

938. This morbid affection is

1. *Uterine.*
2. *Vaginal.*

939 The *former* case may depend on

1. *Uterine Disease.*
2. *Constitutional Debility or Exhaustion.*

940. The first is of various kinds, already noticed. The second is frequently induced by fatigue and harass, but by no cause so frequently as *undue lactation.* It may be con-

joined with hæmorrhœa, or may follow, or be followed by, sanguineous discharge. It frequently alternates with menorrhagia.

941. Vaginal Leucorrhœa may arise from

1. *Inflammation.*
2. *Inflammation of the Cervix Uteri.* § 885.
3. *Polypus*, &c.
4. *Hœmorrhoids.*
5. *Ascarides.*

III. THE DISEASES OF THE OVARIUM.

I. INFLAMMATION.

942. Inflammation of the Uterine Appendages has been already noticed, § 709. That of the Ovarium is denoted solely by local pain and tenderness, the general system and the functions of other organs being scarcely influenced by this affection.

II. ENCEPHALOSIS, ETC.

943. As inflammation of the Ovarium is merely characterized by *local* pain and tenderness, the present and other morbid growths are denoted by *local tumor*, detected by a careful *examination*, and the effects of *compression* on adjacent organs.

III. ENCYSTED TUMOR, ETC.

944. This case includes

1. *One Cyst;*
2. *Numerous Cysts;*
3. *Hydatids.*

945. It is distinguished by *tumor*, § 941, originating in the

situation of the ovarium, on *one side* of the abdomen, gradually enlarging, and leading to a tumor with *fluctuation*, of considerable, and even enormous magnitude.

946. This affection is distinguished from

ASCITES

by the following signs: 1. it is generally *more tense*, and, when of moderate magnitude, *more protuberant, more defined*; 2. the sound is dull on percussion at the prominent part of the abdomen, whereas in Ascites it is sonorous at this part, from the floating of the intestines, whilst it is dull nearer the spine; 3. it is less changed by *posture*, whilst in Ascites the effusion falls to the lowest part of the abdomen in the erect, and to the posterior parts in the recumbent, positions.

947. Ovarial cysts generally arise without any assignable cause; but Ascites usually depends upon some preceding organic affection, the diagnosis of which is, in itself, important: the principal of these are

1. *Peritonitis;*
2. *Disease of the Heart;*
3. *Disease of the Liver;*
4. *Disease of the Kidney*, &c.
5. *The Loss of Blood;*
6. *Inveterate Chlorosis;*
7. *The Cachexiæ*, &c. &c.

Of these various primary diseases in Ascites, numerous notices are distributed throughout this work, and the subject is treated of expressly in Chap. ix of Sect. I.

III. THE DISEASES OF THE MAMMA.

I. INFLAMMATION.

1. *The Acute.*

948. I. *The History.* Inflammation of the Mamma may

occur from a blow, or similar external causes; but its most frequent source is that change which is wrought for the secretion of milk, after parturition, left unrelieved by the too tardy application of the infant to the breast.

949. II. *The Symptoms* consist in swelling, tenderness, and pain, sometimes preceded by rigor and attended by fever. These symptoms may subside, or become attended by throbbing and augmented hardness, and tenderness, and eventually by glossy redness, and fluctuation, denoting the occurrence of *suppuration*. The most tender part at length *ulcerates*, unless the pus be allowed to escape through an artificial opening.

950. III. *The Varieties*. Sometimes there are several successive abscesses, with much suffering, fever, and perspiration. Sometimes an abscess is formed very deeply, burrows, and forms several sinuses, requiring successive punctures by the lancet. In other, rarer, cases, pus forms in contact with the ribs, leading to exfoliations of bone.

2. *Lacteal Abscess.*

951. This affection is not preceded by the symptoms of acute abscess; but a sense of tension is experienced, and a fluctuating tumor is felt extending from the nipple towards the circumference of the mamma. The tumor is confined to this part. Its tension is augmented by the rush of milk when the infant is put to the breast. The cutaneous veins are large. If a puncture be made, several ounces of milk are discharged; and if this opening be small, the cavity is speedily filled again. Sometimes the skin ulcerates, and an opening is made, through which the milk flows during each act of suckling. This affection resembles Ranula in its nature.*

3. *Chronic Abscess.*

952. Sometimes pus is formed slowly, without previous red-

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* Sir Astley Cooper on the Diseases of the Mamma; p. 16.

ness, tenderness, pain, heat, rigor, or fever. In such a case, the operation for removing the mamma has been begun, and the pus has been accidentally evacuated by the scalpel! A careful examination may, in doubtful cases, detect fluctuation, and a puncture (p. 269) would make the nature of the case perfectly obvious.

II. TUBERCULOUS SWELLING.

953. This disease is slow in its progress, unattended by pain, distinctly circumscribed, generally, though not always, solitary; it is usually accompanied by enlarged cervical glands.

III. THE IRRITABLE MAMMA.

1. *Without Tumor.*

954. In this case, the mamma, or one or more of its lobules, becomes exquisitely tender and painful. The pain is often extended to the shoulder, axilla, inner side of the elbow, and the fingers, and sometimes along the side to the hip. The slightest handling augments the pain, which is sometimes such as to render the weight of the breast, or the position on the side affected, equally insupportable.

955. This affection is augmented on the approach, and diminished on the recession, of the catamenia, which are generally irregular, deficient, or profuse.

956. There is sometimes an alternate sensation of heat and cold, or darting like that of tic douloureux. Sometimes both mammæ are affected.

2. *With Tumor.*

957. In some instances the pain and tenderness are situated in a small, moveable *tumor*, varying from the size of a pea to that of a marble.

958. This tumor is solid and semitransparent, interwoven with fibres.

3. *With Ecchymosis.*

959. With exquisite tenderness of the mamma, and pain down the inner side of the arm, there is, in this case, a degree of ecchymosis before and at each catamenial period. It exists in one large spot, whilst smaller and less vivid spots appear in other parts of the mamma. It declines at various periods after the cessation of the catamenia. It occurs in the young, and frequently in those in whom the mamma is large, and the constitution irritable.

IV. CHRONIC MAMMARY TUMOR.

960. I. *The History.* This affection, like that last mentioned, has a strict connection with the catamenia, being probably induced, and certainly aggravated, by sympathy with the uterine organs at the catamenial periods. It occurs principally in the young, single, or childless.

961. II. *The Symptoms.* This tumor grows upon the *surface* of the mamma, either the anterior or posterior; it is moveable over that surface, and lobulated to the touch; it begins, and often continues long, without pain; but it is sometimes painful, the pains extending to the shoulder, resembling the aching of rheumatism; it is generally, but not always, free from tenderness to the touch. Its growth is slow; its weight usually from one to four ounces; but it is sometimes larger.

962. III. *The Morbid Anatomy.* The structure of this tumor is lobular, and it is enveloped in a membrane, both *similar* in appearance to the mamma itself.

V. CYSTS, HYDATIDS, ETC.

963. These affections are distinguished by tumors, without pain or tenderness, but with tension, and, eventually, with fluctuation. Their accession and progress are slow. There are no constitutional symptoms. The disease gives no real uneasiness, until, becoming large, it is inconvenient from its bulk and weight. The external veins enlarge. The tumor is moveable upon the ribs and under the integuments.

964. Cysts and Hydatids sometimes induce inflammation and ulceration. The system then suffers.

965. The most certain criterion of the Encysted or Hydatid tumors, is *a puncture*. The escape of a limpid fluid satisfies the doubts of the surgeon, and allays the fears of the patient. Both diseases are local, and free from malignancy.

966. Cysts generally occur in *clusters*. Hydatids are distinguished by *containing* others produced by their internal surface.

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967. The preceding diseases are all free from malignancy in their character and tendency. Those which are next to be noticed are frightfully malignant and destructive, and arise from, or lead to, terrific constitutional contaminations.

VI. ENCEPHALOSIS.

968. I. *The History.* This disease occurs earlier in life than the terrific disease next to be noticed.

969. II. *The Symptoms.* It is distinguished from it, by its rapid growth, its irregular form, its soft, doughy feel, its tendency to ulceration, the formation of fungus. At first, it is even and smooth on its surface, free from pain or tenderness, or discoloration, but soft and fluctuating. It soon acquires a fearful size and aspect; the surface is then uneven and discolored, the feel quaggy. The system suffers: the patient has pallid prolabia, and is feeble and restless.

970. The adjacent lymphatic glands, or some more distant part, internal or external, may be simultaneously affected.

VII. SCIRRHUS. CARCINOMA.

971. I. *The History.* Scirrhus frequently occurs about the period of the cessation of the catamenia. It may be apparently spontaneous; or it may arise from a blow, or from the change in form and character of some other mammary disease.

972. II. *The Symptoms.* This disease is circumscribed, at first, little augmented in size, of singular hardness, somewhat tender, and accompanied by a peculiar lancinating pain. In its progress,

973. 1. *The Nipple* frequently becomes fixed and drawn inwards;

974. 2. *The Skin* becomes adherent and tuberculated;

975. 3. The adjacent *lymphatic vessels and glands* become enlarged and hard.

976. 4. Eventually, the skin *ulcerates*, and presents the appearance of frightful chasms, and perhaps fungous growths, and there is extreme suffering, and extreme acrimony and fœtor of the discharges.

977. 5. *The whole system* is worn, and hectic; the complexion is "jaune paillé," and there is great emaciation.

CHAPTER VIII.

THE DIAGNOSIS OF THE DISEASES OF THE GENITAL ORGANS.

978. Few diseases require such care in the diagnosis as those of the genital organs. In the subsequent paragraphs, I shall, as usual, attempt a brief, practical view of this subject.

ARRANGEMENT OF THE DISEASES OF THE GENITAL ORGANS.

I. IN THE MALE SEX.

I. OF THE PENIS.

I. Gonorrhœa.

II. Excoriation.

III. Superficial Ulcer.

IV. Phagedenic Ulcer.

V. Sloughing Ulcer.

VI. Syphilitic Ulcer.

VII. Herpes Præputialis.

VIII. Scirrhus—Carcinoma.

II. OF THE TESTIS.

I. Inflammation.

1. *Of the Epididymis.*
2. *Of the Body of the Testis.*

1. *Enlargement.*
2. *Suppuration.*
3. *Sloughing.*

II. Tubercles.

III. Fibrous Tumor.

IV. Encephalosis.

V. Scirrhus.

VI. Hydrocele.

VII. Varicocele.

VIII. Hernia.

II. IN THE FEMALE SEX.

I. OF THE PUDENDA.

I. Inflammation.

1. *Enlargement.*
2. *Abscess.*

II. Prurigo.

III. Vascular Tumor of the Meatus.

IV. Varicocele of the Urethra.

V. Affections of the Anus.

II. OF THE VAGINA.

I. Inflammation.

II. Tumors.

I. IN THE MALE SEX.

II. DISEASES OF THE PENIS.

I. GONORRHŒA.

979. I. *The History.* This disease usually takes place six or eight or more days after an impure coitus.

980. II. *The Symptoms* are a white, opaque, mucous discharge from the urethra, with partial abrasions, with ardor urinæ, and frequently with one or other of the following *Complications:*

1. *Chordee,*
2. *Inflammation of the Testis,*
3. *Sympathetic Bubo;*

and it frequently issues in

1. *Gleet,*
2. *Stricture.*

II. EXCORIATION.

981. This affection has frequently a similar origin, and is denoted by superficial redness, the removal of portions of the cuticle, and an offensive discharge, occupying principally the corona glandis and the adjacent part of the prepuce, and usually attended by phymosis and gonorrhœa.

III. THE SUPERFICIAL ULCER.

982. This affection is divided by Mr. Carmichael, in his excellent work,* into two kinds:

1. *Without elevated Edges.*
2. *With elevated Edges.*

983. 1. The *first* of these, the most frequent of venereal ulcers, is characterized by being superficial, and free from induration, and from elevation of its edges. In general, it is raised above the surrounding skin, and exhibits a smooth surface, the color of a healthy sore; but it is without granulations, and has somewhat a fungous appearance. Sometimes it is level with the surrounding surface, seldom excavated.

984. These ulcers vary from the size of a pea to that of half-

* An Essay on Venereal Diseases, 4to. 1814.

a crown. They occur most frequently on the glans penis and inside of the prepuce, often exciting phymosis; but they also occur on the external surface of the penis and scrotum: in the latter situation, they are frequently raised, and resemble soft warts. In women, they occur on the labia, perinæum, and fossa of the nates. They are often complicated by gonorrhœa or by a similar discharge from the mucous membrane of the glans or prepuce.

985. 2. The *second* form of superficial ulcer differs from the former one by having elevated edges; it displays a whitish or reddish brown surface, without granulations. It is not excavated, but may be raised; and it is free from induration.

986. It appears most frequently on the external surface of the prepuce, penis, or scrotum, and varies from the size of a pea to that of a shilling. It frequently occupies the orifice of the prepuce and causes phymosis.

987. This ulcer frequently leads to obstinate buboes.

988. Mr. Carmichael is of opinion that the same *constitutional Symptoms* arise in each of the three cases which have been described, and which he ascribes to the same original poison. Those symptoms are "more or less fever, which ushers in a *papular eruption*, inflammation and soreness of the fauces, attended with difficulty in swallowing, severe pains which affect the head and larger joints, and sometimes inflammatory swellings over the superficial bones."

IV. PHAGEDENIC ULCER.

989. This ulcer, the character of which is obvious at first sight, is usually situated on the glans penis, more or less of which it destroys by a more or less gradual or rapid progress: there is no appearance of granulation; when healed or nearly so, it frequently resumes the phagedenic appearance.

V. THE SLOUGHING ULCER.

990. This ulcer, more terrible in its devastations than the phagedenic ulcer, is characterized by the presence of a slough,

which is small, circumscribed, and black at first, but afterwards more or less extensive and ragged. When this slough separates, it frequently displays an ulcer of a phagedenic character. There is then pain, and the formation of a fresh slough, and thus the penis, the pudenda are destroyed, and even the bladder and uterus themselves.

991. The *constitutional symptoms* are, according to Mr. Carmichael, the *same* in the *phagedenic* and in the *sloughing* ulcers, and consist of a *pustular eruption* on the skin, which degenerates into ulcers covered by crusts;—in "a white, slimy ulceration of the tonsils and pharynx," of the velum and uvulæ, which it promptly destroys, and of the nares, when it induces a fœtid discharge, with caries;—and in pain of the joints, especially of the knees, wrists, and ankles, but also of the fingers and toes, which become red and painful.

VI. SYPHILITIC ULCER.

992. This ulcer is still best described by Mr. Hunter, as "a sore somewhat of a circular form, excavated, without granulations, with matter adhering to the surface, and with a thickened edge and base. This hardness or thickness is very circumscribed, not diffusing itself gradually and imperceptibly into the surrounding parts, but terminating rather abruptly."*

993. The *constitutional symptoms* are, according to Mr. Carmichael, a *scaly eruption*, which appears on the forehead, groins, &c. and on the palms of the hands, except when the skin is in contact with other skin, when it is elevated, moist, flat, and warty;—*ulcerations of the throat*, described by Mr. Hunter as "a fair loss of substance, part being dug out, as it were, from the body of the tonsil, with a determined edge, commonly found with white matter adhering to it, like a slough which cannot be washed away;"†—*nodes*, which affect, principally, the *superficial* bones, as the tibia, sternum, clavicle, and cranium, being deeply situated in their substance and unattended with discoloration.

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* Hunter on the Venereal Disease. † Ibid.

994. *The Effects of Remedies.* Whilst all the *other* forms of venereal diseases are unrelieved, perhaps greatly exasperated, by the use of mercury, true syphilis undergoes an amelioration which proceeds, *pari passu*, with the influence of mercury on the system.

995. I have only to add that these distinctions, and especially these *associations* of primary and secondary symptoms, must not be received implicitly. The subject is full of interest and importance, and requires fresh examination. Some forms of eruption are omitted, as the *tubercular*.

VII. HERPES PRÆPUTIALIS.

996. This affection consists in one or two clusters of vesicles, situated on the præpuce, or on the labia pudendi. Transparent at first, these vesicles become opaque, and then assume a peculiar appearance. On the internal surface, these vesicles lead, on the fourth or fifth day, to a small ulceration; on the external surface, to a scab, about the sixth. This affection yields without remedies. It is apt to recur.

997. Herpes præputialis is precisely similar to that familiar form of Herpes seen on the lip, from exposure to cold.

VIII. SCIRRHUS—CARCINOMA.

998. Cancer of the penis frequently arises from a wart or warts, situated on the glans, frænum, or præpuce. Long indolent, this local disease, when irritated, may lead to the formation of Scirrhus, having its usual character of induration; and this, to ulceration or Carcinoma. The course of this disease is usually slowly progressive: it eventually involves the inguinal glands, and the integuments of the pubes, or scrotum.

999. Mr. Earle* has made some interesting observations upon *diseases resembling cancer*, induced by local irritation, from which I extract the following description of a disease affecting the penis: It occurs in persons with elongated

* Medico-Chirurgical Transactions, vol. xii, p. 268.

foreskins from want of cleanliness. The prepuce becomes excoriated and œdematous, and the frænum thickened; and there is phymosis. The further irritation of the urine induces ulceration, swelling, and induration.

II. THE DISEASES OF THE TESTIS, SCROTUM, ETC.

I. INFLAMMATION.

1000. I. *The History.* The testis may become inflamed from blows or other similar causes; but the most frequent cause is *gonorrhœa.*

1001. II. *The Symptoms* are heat, tenderness, and swelling, affecting, like all the other diseases of this organ,

1. *The Body of the Testis principally, or*
2. *The Chord and Epididymis.*

This affection may issue in

1. *Enlargement.*
2. *Abscess or Abscesses.*
3. *Sloughs of Cellular Membrane.*

II. TUBERCLES.

1002. *The Symptoms* of the Tuberculous Testis are those of slow inflammation. This affection usually arises from gonorrhœa, affects the epididymis, and yields to remedies.

III. FIBROUS TUMOR—ENCEPHALOSIS—SCIRRHUS.

1003. The Fibrous Tumor is distinguished by its uniform shape from Encephalosis, and by its want of extreme induration, from Scirrhus. *All* occupy *the body of the testis* chiefly. The first is *purely local;* the others apt to *spread,* and apt to occur in *distant parts.**

* Encephalosis seems to push the textures in which it is situated aside; Scirrhus seems to involve them in its extension.

1004. A singular disease must be noticed in this place, termed the

IV. CHIMNEY-SWEEPER'S CANCER.

1005. I. *The History.* This disease does not occur in children or the very young subject. It is caused by the irritation of soot, within the cuticular folds, chiefly of the scrotum, in those predisposed by middle age, to such diseases.

1006. II. *The Symptoms.* This disease is denoted by a warty excrescence, which eventually ulcerates, the edges of the ulcer being everted, and affected by fungous growths; the discharge is fœtid; and there is much induration. The disease spreads, and eventually may involve the entire scrotum, the perinæum, the testis, the inguinal glands, &c.

V. HYDROCELE.

1007. Hydrocele is distinguished, and its extent in complicated cases traced, by its transparency.

VI. VARICOCELE.

1008. Varicocele is ascertained by its peculiar, varicose feel; and by its disappearing in the recumbent position.

VII. HERNIA.

1009. Hernia is ascertained by its history, by its being reducible, by its tympanitic feel and sound, &c.

II. IN THE FEMALE SEX.

I. THE DISEASES OF THE PUDENDA.

I. INFLAMMATION.

1010. Inflammation may affect the pudenda, from internal and external causes, and lead to

1. *Swelling and*
2. *Suppuration.*

II. PRURITUS; ETC.

1011. Herpes of the pudenda has been already mentioned, § 996. Sometimes, especially in diseases of the uterus, there is extreme pruritus: *this symptom alone should always lead to an examination per vaginam.* In other cases, there is excoriation, or apthæ, or verrucæ, the nature of which is only ascertained on inspection.

1012. The venereal affections have been already described §§ 981, 992.

III. VASCULAR TUMOR OF THE MEATUS.

1013. Sir C. M. Clarke has described a vascular tumor occupying the orifice of the meatus urinarius. It is exquisitely tender to the touch; and attended by a mucous discharge. It is ascertained, at once, by an inspection of the part. It is cured by a ligature.

IV. VARICOSE VESSELS OF THE URETHRA.

1014. The vessels of the urethra sometimes become varicose. This disease is also described by Sir C. M. Clarke. The urine is apt to be detained in a posterior part of the urethra, causing a pouch, in which the urine is retained, and inducing a constant desire to make water.

V. AFFECTIONS OF THE ANUS.

1015. With or without an affection of the pudenda, there may be pruritus, excoriation, verrucæ, &c. of the verge of the anus, inducing great distress. An inspection alone can establish the diagnosis.

II. THE DISEASES OF THE VAGINA.

I. INFLAMMATION.

1016. Besides gonorrhœa, other forms of inflammation affect

the vagina, attended by mucous discharges and constituting vaginal leucorrhœa. Such a complaint may continue during pregnancy, in which case uterine leucorrhœa ceases. It is readily cured by the injection of the nitras argenti.

II. TUMORS.

1017. Tumors may form in any part adjacent to the exterior surface of the vagina. Mr. Heming has described some interesting cases of this kind. These tumors may be

1. *Mere Abscess; or*
2. *Encysted,*
3. *Fibrous,*
4. *Tuberculous,*
5. *Encephaloid, or*
6. *Scirrhous.*

1018. The *Diagnosis* will depend on the ***History***, ***Symptoms***, and a careful *Examination.*

CHAPTER IX.

THE DIAGNOSIS OF PUERPERAL DISEASES.

1019. In the early period of pregnancy, we witness the effects of a singular sympathy between the uterus and the stomach—a disease of *irritation*—under the form of sickness and vomiting.

1020. In the later periods of pregnancy, we have to witness the effects of plethora, and of compression upon the abdominal viscera and vessels. The enlarged and gravid uterus occupies great space; and, in addition to this, the colon is frequently somewhat obstructed and becomes loaded.

1021. At the latest period of pregnancy and during parturition, there is frequently great fear of an affection of the brain, with apoplexy or convulsions.

1022. After parturition, we encounter other circumstances, the effects of which are not less to be feared;—the *immediate* effects of hæmorrhagy; sometimes convulsions.

1023. Nor are we secure, even when the immediate effects of parturition have passed away: the contracted uterus is more vascular than natural, and augmented in size; it is in a state *bordering* on inflammation: it is very apt, with its peritonæal covering, and its appendages, to take on actual inflammation: its internal surface is *exposed*, and the veins and lymphatics which take their origin or course from it may also become inflamed: but, besides these events, we are frequently, very frequently, called to witness others which result from a state of intestinal load and irritation: nor do these complete the list; for, although the *immediate* effects of hæmorrhage may

have ceased, others, *later* in their period of occurrence, and of a widely different character, frequently occur and present some very formidable cases of puerperal disease.

1024. There is, besides, a series of *mixed* cases, to which I would very particularly draw the attention of my young readers.

1025. I shall now endeavor to present such an arrangement of puerperal diseases, in the order of their importance and frequency, as I have formed from long attention to the subject, —not in hospitals, which present a very unfair view of the subject, but in actual practice,—not amongst the poor only, but amongst the middling and higher classes of society.

1026. There is still another point to which I must draw the attention of my reader: there are *doubtful* cases, as well as *mixed* cases; and there will often be great difficulty, anxiety, and danger, in determining the question of general blood-letting. In every case in which it *is* decided that a vein is to be opened, let it be done in the erect position, the eyes turned to the ceiling of the room. In this manner, frequently *much less*, and frequently also *much more*, blood will be taken, than it was previously contemplated to take: for the case will partake more of the nature of irritation, or of inflammation, than was supposed! The physician will derive much information, and the patient will be preserved from much danger, by adopting the plan which I have proposed. I am astonished to see how so plain, so simple, and so important a rule is either disregarded through supineness, or attempted to be put aside from motives which I forbear to name. The plan which I have so often enforced is one of great safety, and replete with diagnosis.

1027. But I proceed to the

ARRANGEMENT OF PUERPERAL DISEASES.

I. INFLAMMATION OF THE PERITONÆUM.

1. *Of the Uterine Peritonæum.*
2. *Of the Uterine Appendages.*

3. *Of the Pelvic Peritonæum.*
4. *Of the Diffused Peritonæum.*

II. Intestinal Irritation.

1. *With Affection of the Abdomen.*
2. *With Affection of the Head.*

III. Exhaustion from Loss of Blood.

1. *With Reaction.*
2. *With Sinking.*

IV. Mixed Cases.

Puerperal Mania, &c.

V. Softening of the Uterus.

VI. Inflammation of the Lymphatics.

1. *Usually with Peritonitis.*
2. *Without Peritonitis.*
3. *With Pleuritis.*

VII. Inflammation of the Veins.

1. *Adhesive.*
    1. *Uterine.*
    2. *Crural.*
2. *Suppurative.*
    1. *Usually without Peritonitis.*
    2. *With Abscesses of the Brain, Lungs, Liver, Spleen, &c. the Joints, Cellular Membrane, Eye, &c. &c.*

1028. Before I proceed to detail the prominent symptoms of the morbid affections which I have thus enumerated, I

would particularly impress upon my reader the importance of an accurate acquaintance with the

PUERPERAL STATE

when unattended by actual disease.

1029. There is frequently a degree of febrile action and of perspiration; yet, in some cases, carefully noted, there was *no* frequency of the pulse, *no* tenderness of the uterus: a degree of acceleration of the pulse, however, and a degree of uterine tenderness, *may* occur, and subside; but either of these symptoms should lead us to watch the patient with care, not to say anxiety. The physician should also make himself intimately acquainted with the ordinary *feel* of the *uterus*, and with the *appearances* of the *lochia*, at various periods after parturition; and he should carefully study the phenomena, constitutional and local, of the effort to establish the secretion of the milk, and of the office of lactation.

1030. I now proceed to treat of

I. INFLAMMATION OF THE PERITONÆUM.

1. *Acute.*

1031. I. *The History.* Puerperal inflammation within the abdomen is usually introduced by rigor; but by no means always; neither are heat of skin, and headache, *essential* symptoms in this disease.

1032. II. *The Symptoms* vary somewhat with the *seat* and *extent* of the inflammation. This *begins* and may be nearly confined to

1. *The Uterine Peritonæum,*
2. *The Uterine Appendages,*
3. *The Pelvic Peritonæum,*

but it may be diffused over

4. *The Abdominal Peritonæum.*

1033. These circumstances are only to be determined by a careful examination of the abdomen, and especially of the hy-

pogastric and iliac regions. With the pain, there is tenderness on pressure, more or less *confined*, at first, to the former of these regions, and diffused afterwards, perhaps, over the abdomen, and varying in *degree*.

1034. The movements of the body, and of respiration, are more or less repressed; and there are frequently sickness and vomiting. The pulse quickens and frequently becomes small. The state of the *lochia* should be carefully noticed: it constitutes the *index* to the condition of the uterus: the lochia become scanty or suppressed, and lose their healthy color.

1035. III. *The Effects of Remedies.* We learn much of the nature of the disease, or of the extent and degree of the inflammation, and of the strength of the patient, by observing the effect of blood-letting in the perfectly erect position: in acute and extensive serous inflammation, much blood flows before syncope is induced: in some other diseases, and in other forms of inflammation, there is comparatively great susceptibility to the effects of loss of blood. In no case is this criterion more important than in puerperal diseases.

1036. IV. *The Morbid Anatomy* consists in the effusion of *serum*, *lymph*, or *pus*, in various quantity, and over a various extent of surface.

2. *Chronic.*

1037. The chronic form of Puerperal Peritonitis is usually confined to the uterine appendages, or to the pelvic peritonæum. The former case has been briefly characterized, § 709; the latter may induce a fulness in some part of the pelvis, perceptible on an examination per vaginam, with compression and interrupted function of the bladder* and rectum, and constitutional fever.

II. INTESTINAL IRRITATION.

1038. I. *The History.* This affection, the most common of

* In one case, there was a copious deposite of uric acid, frequent desire to void urine, and a perceptible fulness in the front of the vagina.

puerperal diseases, in its milder or severer forms, is not unfrequently ushered in by severe rigor: this is followed by febrile heat, and the symptoms about to be mentioned.

1. *With Affection of the Abdomen.*

1039. II. *The Symptoms* in this case are diffused pain, and superficial and diffused, but often extreme tenderness: the uterine region is not usually more tender or painful than the rest of the abdomen. There is frequently general tumidity, as well as tenderness.

2. *With Affection of the Head.*

1040. In this case, there is great pain of the head, frequently with great intolerance of light and of sound, throbbing of the temples, and occasionally delirium.

1041. These two affections are not unfrequently combined in the same case, at the same or at subsequent periods.

1042. In addition to these principal affections, there is also, in some instances, severe *pain* along the course of the *scalene muscles;* or of one side of the thorax, resembling *pleuritis.*

1043. The reader may consult further, § 178.

1044. III. *The Effects of Remedies.* In this affection there is, compared with inflammation of the peritonæum, a characteristic and diagnostic susceptibility to the effects of loss of blood, denoted by early syncope on withdrawing blood in the erect position.

1045. I have only twice had an opportunity of examining the body after this disease: there was no discoverable morbid change of structure or effusion.

III. EXHAUSTION FROM LOSS OF BLOOD.

1046. I. *The History* is sufficiently marked by the previous occurrence of hæmorrhagy. It is only important to bear in mind that the symptoms of Exhaustion do not always arise from *profuse* hæmorrhagy, but occasionally, in the susceptible, from a moderate loss of blood; and that they do not always form immediately.

1047. II. *The Symptoms:*

1. *Of Reaction.*

1048. In this case there are excessive pain and throbbing of the *head*, palpitation of the *heart*, fulness and throbbing of the pulse, &c. with a disposition to faintishness.

1049. The affection of the head is sometimes violent in the extreme: there are severe pain, a sense of pressure, intolerance of sound, perhaps delirium.

1050. The affection of the heart consists in equally violent palpitation, perhaps with a disposition to syncope.

2. *Of Sinking.*

1051. In this case the violence of the symptoms subsides: there is frequently delirium; the breathing becomes *noisy*, like that of a person out of breath—always a fearful symptom; a crepitus is heard in the extreme branches of the bronchia, on applying the ear to the chest; the pulse loses its throb, but not its frequency.

1052. See further, §§ 205, 206.

1053. III. *The Effects of Remedies.* There is a disposition to syncope, even on moving the bowels.

1054. IV. *The Morbid Anatomy.* There is, doubtless, a disposition to effusion within the head.

IV. MIXED CASES.

1055. It most frequently happens that Inflammation, Irritation, and Exhaustion, are mixed in the same *puerperal* case. It becomes therefore more than ever necessary to adopt any precautions in the use of blood-letting which can conduce to the safety of the patient or the diagnosis of the disease. See § 1022.

1056. But in this place I am particularly anxious to draw the attention of my reader to the subject of

PUERPERAL MANIA.

1057. I. *The History.* This disease generally involves

1. *Intestinal Irritation;*
2. *Exhaustion, and perhaps*
3. *Inflammation; with*
4. *Uterine Irritation.*

Its accession is usually rather sudden, perhaps after some mental excitement. It occurs at various periods after delivery; sometimes even from protracted lactation; and generally in those in whom there is an hereditary disposition to mania.

1058. II. *The Symptom* is some form of mania, and, in the case of uterine irritation, sometimes that termed nymphomania.

1059. In every case of puerperal mania, the state of the bowels, the condition of the system, and especially that of the uterus and its appendages, should be carefully ascertained.

1060. The diseases of which I must next treat, are still more formidable. They are principally *hospital* cases. The first of them is

V. SOFTENING OF THE UTERUS.

1061. I. *The History and Symptoms.* When, after rigors, and fever, and with pain in the hypogastrium, and suppression of the lochia, there are symptoms like those of the *sinking state*, softening and destruction of the substance of the uterus may be suspected: the countenance becomes pallid, cold, and collapsed; the pulse extremely frequent and small; there is a hurried state of the respiration, anxiety, prostration, and other *typhoid* symptoms.

1062. II. *The Morbid Anatomy* consists in a softened, broken texture of the substance of the uterus, with a fœtid, sanious exudation from the incisions made into it.

VI. INFLAMMATION OF THE LYMPHATICS.

1063. *The general Symptoms* in this formidable disease are *typhoid*, and very similar to those just detailed. There is

usually peritonitis, and, *sometimes, pleuritis;* but there are not the secondary abscesses, &c. observed in phlebitis.

VII. PHLEBITIS.

1064. The important distinction in regard to uterine as in the other forms of Phlebitis, is between the

1. *Adhesive, and*
2. *The Suppurative.*

1065. In the *former*, the effects are *localized. Uterine Phlebitis* of the adhesive character is attended by local pain and tenderness. The occurrence of *Crural Phlebitis* seems to constitute the disease formerly termed the

PHLEGMASIA DOLENS.*

1066. This disease is distinguished by pain in the situation of the iliac and inguinal veins, with tension and swelling, afterwards pursuing their course down the thigh. The femoral vein is sometimes felt like a cord, and the swelling is white, tense, elastic, painful, and tender.

1067. The *latter* is a far more formidable and fatal disease. It is denoted by the occurrence of terrific *typhoid* symptoms, and by external suppurative inflammation of the integuments, or of the eye; whilst abscesses form internally in the brain, the *lobules* of the lungs and liver, in the spleen, in the joints, in the muscular substance, &c. It is usually unattended by peritonitis.

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* For the elucidation of this subject, the profession is deeply indebted to Dr. D. D. Davis and to Dr. Robert Lee.

SECTION III.

THE DIAGNOSIS OF SOME TOPICAL DISEASES.

CHAPTER I.

THE DIAGNOSIS OF SOME DISEASES OF THE FACE.

1068. It is admitted to be impossible strictly to define and separate the objects of physic and surgery. The same disease may, at one period, belong to the former, and, in a subsequent period, to the latter department of the healing art. There is a province, which both physicians and surgeons should investigate, and which has been denominated *Medical Surgery*. To this, most of the subjects to be treated of in the present section belong.

1069. This remark is especially true in reference to certain diseases of the Face, the diagnosis of which it is my present object to bring before my readers.

1070. These diseases consist chiefly in eruptions, ulcerations, or changes of texture, in some of the structures constituting the different parts of the face, having their origin in constitutional circumstances or local irritations. It is highly important to be intimately acquainted with the *early* appearances of these affections, some of which are inexpressibly terrible.

1071. One of these diseases, the porrigo favosa, although of a frightful aspect, is nevertheless superficial, and often heals without a scar; another assumes a phagedenic character, and erodes through the part affected; a third, the lupus, begins with a tubercle which penetrates deep, and is afterwards itself destroyed by ulceration; a fourth early assumes the appearance of a cancerous ulcer.

1072. The *forehead*, the *eye-lids*, the *cheeks*, the *nose*, the *lips*, the *chin*, are the parts principally affected by these diseases, which may be thus arranged:

ARRANGEMENT OF THE DISEASES OF THE FACE.

I. Erythema Nasi.
II. Acne Rosacea.
III. Porrigo Favosa.
IV. Lupus.
V. Scrofula.
VI. Carcinoma.
VII. Sycosis Menti.
VIII. Ozæna.
IX. Parotid Fistula.
X. Gangrene.
XI. Disease of the Antrum.

I. ERYTHEMA NASI.

1073. There is a peculiar and distressing recurrent form of Erythema or Erysipelas of the *Nose*, dependent on a deranged state of the digestive organs; it is readily recognized, and it is cured by a persevering use of mild, warm, purgative medicines.

II. ACNE ROSACEA.

1074. I. *The History.* This disease usually occurs after

the age of forty, and is apt to be induced by long-continued excess in wine or spirits.

1075. II. *The Symptoms.* It is denoted by extreme redness, first observed upon the end of the nose, and gradually extending over the sides of the nose and to the cheeks: these parts are rough, beset with small suppurating tubercles, and perhaps even fissured. The forehead, cheeks, and even the chin, may become affected. The nose sometimes enlarges and becomes fiery or deep red; and the tubercles, on suppurating, may ulcerate unfavorably.

III. PORRIGO.

1076. The Porrigo favosa, when it affects the nose and face, assumes a frightful aspect. It nevertheless frequently heals without leaving a scar. It must be distinguished from *Lupus*, the disease to be next described, and from the Ecthyma and Sycosis.

1077. This disease is characterized by an eruption of large, soft, straw-colored pustules, without previous inflammation: these pustules are somewhat flat, with an irregular edge. When seated on the face, they become confluent, discharge a viscid humor, form scabs, and are surrounded by inflammation, and perhaps by other more distinct pustules highly characteristic of this disease.

IV. LUPUS.

1078. This disease originates in tubercles, which enlarge, redden, and ulcerate. The ulcerations coalesce, and gradually destroy the parts upon which it is seated. These are principally the *nose*, the *lips*, the *cheeks*, the *forehead*, the *eye-lids*; but far most frequently the *nose*.*

* The various ulcers which come under the denomination of Lupus, *noli me tangere*, &c. have not yet been fully distinguished and described. Dr. Bateman is in error in thinking that M. Alibert's plate 21 represents this affection. I have noticed several forms of ulcer, about the nose especially, distinct, but not distin-

1079. In the last situation, the ulcer is apt to spread, destroying the apex, alæ, and septum of the nose, and portions of the cheeks, and inducing dreadful deformity.

V. SCROFULA.

1080. This affection of the face consists, chiefly, in a tumid state of the upper lip, frequently with a deep crack and perhaps ulcer. There is also a peculiar, frightful, diseased ulceration, which passes over the nose and cheeks, which belongs to this disease. But the whole subject is in need of fresh description and representation.

VI. CARCINOMA.

1081. This disease, when it attacks the face, is usually seated upon the *lower-lip ;* but it may occur upon the *forehead*, the *eye lid*, the *cheek*, &c.

1082. It begins obscurely, frequently *without scirrhus*, in a merely scaly, tubercular, or slightly thickened condition of the skin, which is succeeded by ulceration, which spreads progressively with everted edges, frightfully destroying and deforming the part in which it is seated. It is, unlike Lupus, without surrounding redness. It is attended with pain, and eventually with the pale, sallow hue of the complexion peculiar to cancer. Its progress is very various,—slow, arrested, or rapidly progressive.

VII. SYCOSIS.

1083. This disease is peculiar to those parts which are cover-

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guished from Lupus. One of these is without redness, and erodes through the ala nasi. Another is

Syphilitic,

as ascertained by its history, the concurrence of other secondary symptoms, and its cure by mercury.

Representations of the earliest stage of these diseases would constitute a valuable addition to the diagnosis.

ed with hair: it occurs principally upon the bearded part of the upper lip and chin, and on the head. It is almost, but not quite, confined to the male sex.

Sycosis Menti.

1084. The Sycosis of the face is distinguished by slowly suppurating tubercles, the centre of each of which is occupied by a hair. The part becomes inflamed, indurated, red, tender, encrusted, in distinct or coalescent spots, matting the beard together, and preventing shaving. Its progress is very various. It is sometimes long continued.

VIII. OZÆNA.

1085. This term has been employed to denote various diseases within the nostrils, attended by ulcerations, fœtid discharges, caries, &c. The *extent* of the disease is ascertained by an examination: its *origin*, by an attention to the history of the case. It is chiefly connected with

1. *Syphilis; or*
2. *Cachexia.*

It is distinguished, by a careful inspection, from

Polypus.

IX. PAROTID FISTULA.

1086. This disease is readily distinguished by the flow of saliva externally through the perforated cheek, which is continual during the hours of fasting, but greatly augmented during eating.

X. GANGRENE.

1087. Gangrene sometimes attacks the cheek or the jaw after acute diseases, especially in the young. I have principally observed this disease in infants; but it occurs occasionally in adults.

1088. The part becomes tense and pale: an eschar is discovered occupying the internal or external part of the cheeks or the gums. It frequently destroys a part of the cheek, or of the alveolæ.

XI. DISEASES OF THE ANTRUM.

1089. This disease is denoted by *fixed pain* in the seat of the Antrum of Highmore. It can only be *suspected*, until it is fully ascertained by the surgeon.

CHAPTER II.

THE DIAGNOSIS OF THE DISEASES OF THE MOUTH AND THROAT.

1090. The diseases of the Mouth and Throat are highly interesting both to the Physician and the Surgeon, and constitute, in some of their forms, an interesting branch of Medical Surgery. Inflammation, Scirrhus, and Syphilis present examples of each of these points; but they must be arranged together, in order that the diagnosis may be made apparent.

ARRANGEMENT OF THE DISEASES OF THE MOUTH AND THROAT.

I. THE DISEASES OF THE GUMS.

I. Tumidity.

II. Shrinking.

III. Circular Ulcer.

IV. Canker.

II. THE DISEASES OF THE TONGUE.

I. Ranula.

II. Tumors, with slow Suppuration.

III. Ulcer, from Irritation.

IV. Scirrhus; Carcinoma.

III. THE DISEASES OF THE FAUCES.

I. Inflammation.
   1. *Of the Velum.*
   2. *Of the Tonsils.*
   3. *Of the Pharynx.*
   4. *Of the Posterior Nares.*

II. Elongated Uvula.

III. Enlarged Tonsils.

IV. Scarlatina.

V. Herpes.

VI. Aphthæ.

VII. Ulceration.
   1. *Syphilitic.*
   2. *Pseudo-Syphilitic.*
   3. *Mercurial; &c.*

I. DISEASES OF THE GUMS.

I. TUMIDITY.

1091. Tumidity of the Gums sometimes occurs in so marked a form as to constitute an actual disease. The gums grow up, in front, between the teeth, and, in the posterior part of the mouth, so as to cover some of the molares. This disease is usually induced by a loaded state of the colon, and is apt to be aggravated by taking cold.

II. SHRINKING.

1092. Instead of tumidity, the gums sometimes experience a degree of shrinking. The teeth are left exposed, frequently become loose, and fall out, even in the young, without the least appearance of decay.

III. CIRCULAR ULCER.

1093. The gums, the inside of the lip or cheek, the point or edge of the tongue, are liable to an affection consisting of one, two, or more minute circular spots of inflammation, which gradually pass through the stages of sloughing and ulceration, with extreme tenderness. This affection arises from, and denotes a deranged state of the stomach, and occupies a space of eight or nine days. It is promptly relieved by being touched with the nitrate of silver.

IV. CANKER.

1094. This peculiar disease occurs principally in children, and consists of a diffused, ragged ulceration, with offensive discharge, occupying the edge of the gums, and inducing looseness and decay of the teeth. The inside of the cheek is generally affected in a similar manner.

1095. This affection must be distinguished from the ptyalism of mercury, scorbutus, aphthæ, &c. and from the disease described § 1087.

II. DISEASES OF THE TONGUE.

I. RANULA.

1096. This disease consists of a distended salivary duct, generally of the submaxillary gland. It must be carefully distinguished from

1. *A serous Cyst.*
2. *An Abscess.*
3. *A Tumor.*
4. *Calculus.*

1097. These affections have frequently a similar seat at the *under surface* of the tongue. The distinction is most readily made by means of a puncture with a couching needle.

II. TUMOR, WITH SLOW SUPPURATION.

1098. This affection, of which I have witnessed several instances, is usually situated in the *upper surface* of the tongue. It is at first a hard tumor, slightly tender on pressure; this slowly suppurates; after which it presents the appearance of a deep ulcer. It usually arises from derangement of the bowels, and is cured by purgative medicines, with the local application of the nitrate of silver.

III. ULCER, FROM IRRITATION.

1099. The principal cause of this affection is a jagged, decayed tooth: it therefore occurs usually at the *edge* of the tongue. There are hardness, tenderness, and ulceration. It must be distinguished from

IV. SCIRRHUS, AND CARCINOMA.

1100. This disease of the tongue has no special seat; it has no obvious cause. It is denoted, first, by scirrhous hardness, then by irregular ulceration; it is not acutely tender; but it is accompanied by lancinating pain, and, in a short time, by pale sallowness, and emaciation.

III. DISEASES OF THE THROAT.

I. INFLAMMATION.

1101. This disease is denoted by redness and tenderness, and therefore by pain on swallowing. Its seat is determined by that of the pain, and by a careful examination, and is usually

1. *The Velum Palati.*
2. *The Tonsils.*
3. *The Pharynx.*
4. *The Posterior Nares.*

In one form of this disease, there are great laryngeal irritation and violent *cough*, which are removed by passing the nitrate of silver along the border of the velum.

II. ELONGATED UVULA.

1102. By repeated inflammation, the uvula is sometimes left elongated; and, descending upon the posterior part of the tongue, it frequently excites a troublesome *cough*, which is cured by removing a portion of the elongated organ.

III. ENLARGED TONSILS.

1103. In other cases, inflammation leaves an enlargement of the tonsils; the deglutition and the speech are somewhat affected. The nature and extent of the disease are determined on examination.

IV. DYSPEPTIC SORE THROAT.

1104. This form of Sore Throat occurs in the acute or protracted dyspepsia. It is continued, or removed, with the original disease.*

V. SCARLATINA.

1105. This affection is frequently *confined* to the throat. It is distinguished by its peculiar scarlet hue, and by occurring during the prevalence of scarlatina in those exposed to its contagion.

VI. HERPES.

1106. With, or without, a cluster of vesicles, or Herpes, on the lip, there is, occasionally, a diffused Herpes of the velum and palate, readily detected and discriminated on a careful examination.

VII. APHTHÆ.

1107. The velum and palate are frequently beset, with the tongue, the inside of the lips and cheeks, and perhaps the

* I have depicted this affection in the Commentaries on Diseases of Females, 2d edition.

pharynx and œsophagus, with diffused inflammation, partly denuded, and partly covered with ragged portions of cuticle, or Aphthæ.

VIII. ULCERATION.

1108. Ulceration of the Throat is seen in the Tonsils, the Uvula and Velum, and the Pharynx. It is

1. *Syphilitic.*
2. *Pseudo-syphilitic.*
3. *Mercurial;* &c.

1109. The different forms of ulcer of the throat have been described, §§ 998, 991, 992. The mercurial ulcer is associated with the exhibition of mercury, and perhaps with ptyalism.

1110. The profession is still greatly in need of *representations* of these morbid affections of the Throat.

IV. DISEASES OF THE ŒSOPHAGUS.

These diseases have, by mistake, been omitted in the Arrangement, p. 365. They are principally the following:

I. Inflammation.
II. Stricture.
III. Scirrhus, Encephalosis, etc.
IV. Internal Tumors, Polypi, etc.
V. External Tumors, Aneurysm, etc.

I. INFLAMMATION.

This disease of the œsophagus is rare, and can only be indicated by pain and difficulty in swallowing. It is the source of thickening and of

II. STRICTURE.

Stricture, in its simple form, usually occupies the superior portions of the œsophagus. The *seat* of the disease may be conjectured by the quantity of fluid which may be made to

disappear before it is regurgitated, being lower as this is greater: it is ascertained by the bougie.

III. SCIRRHUS, ETC.

Scirrhus is more frequently than simple stricture found at the lower parts of the œsophagus, or at the cardia itself. It is distinguished by the constitutional affection, by watching the efforts to swallow, and by the bougie. See §§ 323, 732. I have seen a small basinful of cocoa swallowed, retained for a time in the œsophagus, and then rejected by an effort precisely like that of vomiting.

IV. INTERNAL TUMORS, ETC.

V. EXTERNAL TUMORS, ETC.

The former of these scarcely admit of diagnosis from stricture or scirrhus; the latter are to be discriminated only by a careful examination. See § 616.

CHAPTER III.

THE DIAGNOSIS OF CUTANEOUS DISEASES.

1111. I HAVE reserved for this Chapter, such of the Cutaneous Diseases as do not possess the degree of importance of the eruptive fevers, and yet require great care and attention for their diagnosis and treatment. My account of them will be as short as possible to be useful.

1112. Cutaneous Diseases gradually pass from the acute into the chronic forms; and even the same cutaneous disease frequently assumes, in its course, both these characters successively. The arrangement of these morbid affections, which is at once most natural and best adapted to set forth the diagnosis, is that which begins with their acute forms and gradually descends to the chronic. Every artificial arrangement, not excepting the elegant classification of Willan, must dissociate similar and associate dissimilar diseases: for example, ecthyma and rupia, although probably different forms of the same disease, are found arranged in the distinct orders of Pustulæ and Vesiculæ. Many other equally injurious distributions of cutaneous diseases in Dr. Willan's classification, might be pointed out.

1113. In portraying the diagnosis of Cutaneous Diseases, I shall be anxious, as usual, to simplify the subject, and not to admit of subdivisions which are mere refinements, and not marked by practical utility.

ARRANGEMENT OF CUTANEOUS DISEASES

I. Roseola.	XII. Porrigo.
II. Scarlet Rash.	XIII. Sycosis.
III. Urticaria.	XIV. Acne.
IV. Erythema.	XV. Ecthyma.
V. Lichen.	XVI. Rupia.
VI. Prurigo.	XVII. Pemphigus.
VII. Miliaria.	XVIII. Pompholyx.
VIII. Herpes.	XIX. Lepra.
IX. Eczema.	XX. Psoriasis.
X. Impetigo.	XXI. Pityriasis.
XI. Scabies.	XXII. Ichthyosis.

I. ROSEOLA.

1114. I. *The History.* The Roseola is either induced by inclemencies of the atmosphere, or occurs *symptomatically* in other diseases, and principally

1. *In Synochus and Typhus.*
2. *In Variola and Vaccinia.*
3. *In Gout and Rheumatism.*
4. *With Miliaria.*

1115. II. *The Symptoms* consist in a rash, generally figured, at first red, afterwards more or less of a rose-color, usually beginning at the extremities and terminating on the face and trunk of the body, of several days' duration, and apt to be recurrent.

1116. It is important to notice this affection, chiefly with the view of distinguishing it from Scarlatina, Rubeola, Erythema, Urticaria, &c. The forms of Roseola enumerated by Dr. Willan are

1. *Roseola æstiva.*
2. *Roseola autumnalis.*
3. *Roseola annulata.*
4. *Roseola infantilis.*
5. *Roseola variolosa.*
6. *Roseola vaccina.*
7. *Roseola miliaris.*

The only forms of this disease requiring notice in this place are

1. *Roseola Æstiva.*

1117. I. *The History.* This form of Roseola occurs chiefly in females of irritable constitutions, from exposure to heats and chills in summer; it is sometimes associated with the local complaints of this season.

1118. II. *The Symptoms.* It is preceded by fever and accompanied by itching and tingling. It is distributed in patches of various figure, not crescentiform, larger, more irregular, and paler than rubeola; at first red, it soon assumes its peculiar roseate hue. The fauces are affected with a similar efflorescence. The rash continues vivid on the second day, but declines on the third, and has disappeared on the fifth. It is sometimes partial and longer continued, or it recedes and returns.

2. *Roseola Annulata.*

1119. This form of Roseola appears on every part of the body, in rose-colored rings, with central areas of the natural color, which gradually dilate, from one or two lines, to half an inch in diameter. This affection is either attended with fever and short in its duration, or it is without fever and more protracted.

1120. Roseola is distinguished from Rubeola by the absence of all evidence of infection, of catarrhal symptoms, and of the characteristic appearance of the rash first on the face, and then on the other parts of the body, with its peculiar crescentic forms.

II. SCARLET RASH.

1121. A cutaneous disease, of which I believe I have seen

several instances, *resembling Scarlatina* in its appearance, is described by Dr. Maton.* it is highly interesting in a diagnostic point of view.

1122. I. *The History.* It appears to be contagious. But the contagion is latent for a longer period than Scarlatina, in the proportion of three weeks to one.

1123. II. *The Symptoms.* There are rigor, and, shortly afterwards, the appearance of rash: this is distinguished from Scarlatina by much tingling, by the absence of enlarged papillæ of the tongue, and of the degree of sore throat observed in Scarlatina, and of the desquammation of the cuticle which follows it.†

III. URTICARIA.

1124. I. *The History.* Urticaria is generally excited by some improper article of food, or other source of indigestion. It assumes various forms, which are thus enumerated by Dr. Willan:

1. *Urticaria febrilis.*
2. *Urticaria evanida.*
3. *Urticaria perstans.*
4. *Urticaria conferta.*
5. *Urticaria subcutanea.*
6. *Urticaria tuberosa.*

The following description will be sufficient for the diagnosis.

1125. II. *The Symptoms.* Urticaria consists of elevations of the skin, of greater or less circumference, of various forms, flat at their upper surface, and generally denominated *wheals.* There is no tenderness or disposition to suppuration; but there is excessive itching or tingling.

1126. In the *febrile* Urticaria, there is a diffused efflorescence, as well as numerous wheals. The case must be distinguished from Scarlatina; but the diagnosis only requires the most ordinary caution.

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* Trans. of the Royal Col. of Phys. vol. v, p. 143.

† This rash bears the same similarity to Scarlatina which Roseola does to Rubeola; the diagnosis is of great importance in determining the question of the possibility of the recurrence of Scarlatina and Rubeola in the same person.

1127. The other forms of Urticaria are sufficiently expressed by their several *epithets*,* and really present little difficulty in the diagnosis.

IV. ERYTHEMA.

1128. I. *The History.* The Erythema is generally *symptomatic.*

1129. II. *The Symptoms.* This affection consists of diffused patches of efflorescence. It is frequently seen upon the face, neck, chest, and arms; and, in conjunction with œdema, upon the legs. In the last situation, it may terminate in gangrenous ulceration. Dr. Willan enumerates the following varieties of Erythema:

1. *The Erythema fugax.*
2. *The Erythema lævе.*
3. *The Erythema marginatum.*
4. *The Erythema papulatum.*
5. *The Erythema tuberculatum.*
6. *The Erythema nodosum.*
7. *The Erythema intertrigo.*

1130. None of these forms require particular notice, except the *sixth.* The Erythema nodosum is common in chlorosis and the similar affections of younger patients. It occurs in the form of red nodes under the skin, along the anterior part of the leg, which are slightly tender, but do not suppurate.

1131. There is another form of Erythema not noticed by Dr. Willan. See § 1073.

V. LICHEN.

1132. I. *The History.* The Lichen generally arises from internal disorder. It occurs, according to Dr. Willan, under the following forms:

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* I have carefully preserved the epithets of Dr. Willan, on account of their utility in the diagnosis of their different forms, although they are frequently but too minute as grounds of subdivision and arrangement.

1. *Lichen simplex.*
2. *Lichen pilaris.*
3. *Lichen circumscriptus.*
4. *Lichen agrius.*
5. *Lichen lividus.*
6. *Lichen tropicus.*
7. *Lichen urticatus.*

The principal of these forms are the

1. *Lichen simplex; and*
2. *Lichen agrius.*

The Lichen pilaris is only peculiar from occupying the roots of the hairs; the Lichen circumscriptus, from the *clustered* arrangement of the papulæ; the Lichen urticatus from its combining the characters of Lichen and of Urticaria; and the Lichen lividus from combining those of Lichen and of Purpura.

1133. II. *The Symptoms:*

1. *Lichen simplex.*

This affection consists of red, inflamed papulæ, first appearing on the face and arms, and then on the trunk and limbs, preceded by fever, and attended by tingling, especially in the night. In about a week, the redness fades and the papulæ decline into scurf, most and longest seen at the flexures of the joints. It may pass into Psoriasis.

2. *Lichen agrius.*

1134. This severer form of Lichen is ushered in by fever. The papulæ occur in large patches, of a high red color, with diffused inflammation: there are much itching, heat, and tingling, which are exasperated by heat, or any irritation, and after dinner. Small vesicles, filled with a straw-colored fluid, are occasionally intermixed with the papulæ. If this affection be long continued, the skin becomes harsh, thickened, and cracked, and there is exquisite pain if it be rubbed. After repeated attacks, it may assume the character of Impetigo.

VI. PRURIGO.

1135. This disease is denoted by severe itching, increased by exposure to heat, affecting either the whole surface of the

skin, or a part only; in some instances, without any apparent eruption; in others, accompanied by an eruption of papulæ, generally larger than those of lichen, and nearly of the same color with the adjoining cuticle.

1136. Dr. Willan describes three forms of Prurigo:

1. *Prurigo mitis.*
2. *Prurigo formicans.*
3. *Prurigo senilis.*

1137. The *first* of these occurs in the young. The *second* is distinguished by its obstinacy and severity, and its peculiar sensations of itching, stinging, creeping, &c. If the second form of Prurigo be obstinate, the *third* is inveterate, and often destroys the comfort of the patient, by its incessant itching and stinging, for the rest of life.

VII. MILIARIA.

1138. I. *The History.* The Miliaria is always *symptomatic.* It may occur in any febrile disorder; but it is chiefly observed when the skin is excited to profuse perspiration. I have seen it in typhus, rheumatism, &c. and it was formerly a frequent attendant on the puerperal state.

1139. II. *The Symptoms.* It consists of an eruption of minute, round vesicles, of the size of millet-seeds, transparent at first, afterwards very slightly opaque. This eruption occurs upon every part of the surface, but chiefly on the throat, neck, and face, diffused, or in patches.

1140. The Miliaria can scarcely be confounded with any other cutaneous affection.

VIII. HERPES.

1141. I. *The History.* Herpes is generally the result of exposure to cold under constitutional derangement. It observes a regular course of eruption, scabbing, and desiccation, which occupies nine or ten days.

1142. II. *The Symptoms.* This affection consists of *clusters* of vesicles, which vary much in form, seat, and extent, giving origin to the following varieties of the disease:

1. *Herpes labialis.*
2. *Herpes zoster.*
3. *Herpes phlyctænodes.*
4. *Herpes circinatus.*
5. *Herpes iris.*
6. *Herpes præputialis.*

1. *Herpes labialis.*

1143. This form of Herpes has been already described, § 1105.

2. *Herpes zoster.*

1144. This form of the disease consists of successive clusters of vesicles, with surrounding redness, spreading directly or obliquely across the waist or thorax, in the manner of a sash or sword-belt. Its vulgar designation is *Shingles.*

3. *Herpes phlyctænodes.*

1145. This kind of Herpes consists of similar successive clusters of vesicles, which observe a similar course, but less regular form. It may occur on any part of the body. It is denominated *Nirles* by the vulgar.

4. *Herpes circinatus.*

1146. This affection is more chronic than the preceding forms of Herpes, and is popularly designated *Ringworm.* Its *vesicular* character distinguishes it, at once, from the *pustular* Porrigo.

5. *Herpes præputialis.*

1147. This affection has been already described, § 996.

IX. ECZEMA.

1148. The Eczema depends upon the application of external or internal irritants. Unlike Herpes, it is extremely irregular in its course and decline. Dr. Willan describes three forms of it:

1. *Eczema solare.*
2. *Eczema impetiginodes.*
3. *Eczema rubrum.*

The *first* of these arises in a part which has been exposed to the direct rays of the sun, chiefly the face and neck. The

second depends upon the application of a local irritation, and appears principally on the hands: it constitutes what is designated, in one instance, the *Grocer's*, in another, the *Bricklayer's* itch, according as the exciting cause is sugar, or lime. But the most important variety of Eczema is the

Eczema rubrum.

1149. I. *The History.* This disease is generally, but not universally, excited by the external or internal use of *mercury.* Its seat, extent, and duration are extremely variable.

1150. II. *The Symptoms.* The first appearance of the Eczema is a diffused redness, rather rough to the touch, and distinctly though minutely vesicular on a careful examination. It is attended by tingling and tumefaction. The vesicles contain a fluid, transparent at first, and, in a few days, slightly opaque. It is most frequently seen on the upper part and flexures of the thighs; but it is often diffused extensively over the surface. The vesicles burst, at length, and pour forth an acrid ichor, and the parts are painfully excoriated and fissured.

1151. The general health is frequently little affected.

X. IMPETIGO.

1152. The transition is natural from Eczema to Impetigo, although these diseases are distributed in distant parts of Dr. Willan's arrangement. That author has divided Impetigo into five forms:

1. *Impetigo figurata.*
2. *Impetigo sparsa.*
3. *Impetigo erysipelatodes.*
4. *Impetigo scabida.*
5. *Impetigo rodens.*

1153. *The Symptoms.* Impetigo consists in the eruption of pustules, which are not very prominent, and which in a few days break and discharge their fluid, the surface becoming red, excoriated, and shining, and discharging an ichorous fluid; there are also great heat, itching, and smarting. The discharge concretes into thin scabs.

1154. The *first* variety of Impetigo assumes the form of *Ringworm;* the *second* is more diffused; the *third* appears

upon the surface of a part affected with erysipelatous inflammation; the *fourth* is long-continued, the part being "encased in a thick, yellowish, scaly crust, not unlike the bark of a tree;" the *fifth* variety is said to be allied to cancer.*

XI. SCABIES.

1155. I. *The History.* Scabies is decidedly contagious.

1156. II. *The Symptoms.* It consists of an eruption of papulæ, vesicles, or pustules, singly, or intermixed, chiefly seated betwixt the fingers and at the bend of the wrists, and of the other joints, but also on every part of the body except the face, terminating in scabs, and accompanied by intolerable itching.

1157. Dr. Willan divided this disease into four distinct forms:

1. *Scabies papuliformis.*
2. *Scabies lymphatica.*
3. *Scabies purulenta.*
4. *Scabies cachectica.*

1158. III. *The Effects of Remedies.* Scabies generally, real Scabies perhaps always, yields to the due application of the unguentum sulphuris.

XII. PORRIGO.

1159. I. *The History.* This disease, like Scabies, is contagious.

1160. II. *The Symptoms.* The Porrigo consists of the eruption of straw-colored pustules, sometimes circumscribed, sometimes diffused, generally but not always confined to the head; the pustules break and give issue to a fluid which

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* It will be obvious, from this brief description, that Eczema and Impetigo are nearly allied. The vesicular and pustular eruptions are sometimes *combined* even; and the *Bricklayer's* and the *Grocer's* itch, is sometimes an Eczema, sometimes an Impetigo. Impetigo seems also allied to Porrigo. The subject is in need of simplification.

concretes into yellowish or brownish, thin or thick, crusts or scabs.

1161. Dr. Willan describes six varietes of Porrigo :

1. *Porrigo larvalis.*
2. *Porrigo furfurans.*
3. *Porrigo lupinosa.*
4. *Porrigo scutulata.*
5. *Porrigo decalvans.*
6. *Porrigo favosa.*

1162. The *first* is peculiar to infants.

1163. The *second* consists in pustules which successively issue in *thin* scabs, like scurf, the hair becoming thin, and weak, and lighter in color.

1164. The *third* consists of pustules which terminate in *small* scabs of the size and appearance of lupine-seeds, and ultimately of the size of a sixpence.

1165. The *fourth*, of pustules leading to thin scabs, which become thick if neglected, assuming the form of *Ringworm*, and ultimately coalescing so as to affect the whole scalp.

1166. The *fifth* variety, or the Porrigo decalvans, is obscurely, if at all, pustular, and consists in bald patches of the scalp.

1167. The Porrigo favosa occurs in all parts of the body, sometimes on the scalp, sometimes on the face, trunk, or extremities only, but chiefly on the head and behind the ears, with swelling of the cervical glands.

XIII. SYCOSIS.

1168. This cutaneous disease, when it affects the head, must be distinguished from Porrigo. The distinction is founded on its tubercular, slowly suppurating character. Its tubercles are inflamed, fleshy, and of a darkish red ; they are apt to coalesce ; and they pour out a sanious matter, which concretes, and mats the hair together. It is distinguished by its seat into the

1. *Sycosis menti.*
2. *Sycosis capillitii.*

1169. The former, affecting the bearded part of the lip and chin, has been noticed § 1083. The *latter* is principally seated

upon the margin of the hairy scalp: the tubercles rise in circular clusters, are softer and more acuminated than those of the Sycosis menti, slowly suppurate, coalesce, and induce an elevated, unequal, ulcerated surface, which often appears granulated, resembling the cut surface of a fig; whence its name.

XIV. ACNE.

1170. It seems quite unnecessary to enter into any minute description of that eruption of slowly or partially suppurating tubercles, which chiefly beset the face and the skin upon the shoulders of young persons. It has been described under four forms by Dr. Willan, the designations of which sufficiently express the varieties of its appearance:

1. *Acne simplex.*
2. *Acne punctata.*
3. *Acne indurata.*
4. *Acne rosacea.*

The last of these has been already noticed § 1074.

XV. ECTHYMA.

1171. I. *The History.* The Ecthyma generally follows some severe indisposition, as fever, scarlatina, rubeola, variola, dyspepsia acuta, or the effects of anxiety, spirits, &c. It constitutes certain forms of venereal eruptions, § 991; and it is a frequent effect of *Cachexia.*

1172. *The Symptoms.* This disease consists of distinct, scattered pustules, situated upon hard, elevated, and inflamed bases, and terminating in thick, hard, greenish, or dark-colored scabs.

1173. Dr. Willan describes four varieties of Ecthyma:

1. *Ecthyma vulgare.*
2. *Ecthyma infantile.*
3. *Ecthyma luridum.*
4. *Ecthyma cachecticum.*

1174. The *first* variety consists of a partial eruption of small, hard pustules, on the neck, shoulders, or extremities, which is completed in about three days. They enlarge and

inflame, form pus, and then scabs. These eventually dry, fall off, and leave no mark behind. They are chiefly seen in young persons whose health has been impaired.

1175. The pustules of the Ecthyma luridum are larger, more diffused, more repeated, and are fixed upon a hard, elevated base of a peculiar dark red color. They appear upon every part of the body, but least frequently on the face.

1176. This form of Ecthyma is principally seen in old persons of broken constitutions. A *symptomatic* variety also occurs during the cachexia which succeeds to scarlatina, &c.

1177. The Ecthyma cachecticum occurs, as its name imports, during various forms of Cachexia, and especially that which follows certain venereal taints. My reader is once more referred to § 991.

XVI. RUPIA.

1178. Rupia is described by Dr. Bateman as consisting of an "eruption of flat, distinct vesicles, with the base slightly inflamed, containing a sanious fluid, the scabs accumulating, sometimes in a conical form, easily rubbed off, and soon reproduced." The same author enumerates three varieties of the disease:

1. *Rupia simplex.*
2. *Rupia prominens.*
3. *Rupia escharotica.**

XVII. PEMPHIGUS.

1179. This disease is described by Dr. Bateman as an eruption of transparent vesicles, about the size of a filbert, with a red, inflamed edge, but without surrounding blush or tumefaction, containing a pellucid fluid, and disposed to ulcerate on breaking.

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* This disease was not noticed by Dr. Willan. Dr. Bateman confesses that, for all practical purposes, it might be included with the Ecthyma, appearing under similar circumstances with the Ecthyma luridum and the Ecthyma cachecticum. It is altogether a useless refinement.

XVIII. POMPHOLYX.

1180. This affection consists of an eruption of blebs without surrounding inflammation, and without fever, which break and heal without scab or crust. It appears under the three following forms:

1. *Pompholyx benignus.*
2. *Pompholyx diutinus.*
3. *Pompholyx solitarius.*

1181. The *first* consists of transparent blebs, which appear in succession, burst, and soon heal. They appear chiefly in boys in hot weather, on the face, neck, and limbs.

1182. The *second* occurs in debilitated or aged persons, in the form of successive blebs, which augment from the size of a pea to that of a walnut, and perhaps burst and lead to excoriation. This disease is sometimes associated with dropsy or purpura.

1183. The *third* form of Pompholyx requires no distinct notice.

XIX. LEPRA.

1184. This disease consists of circular patches of smooth, laminated scales, of different sizes, inflamed at their borders, and depressed in their centres.

1185. There are three varieties of Lepra:

1. *Lepra vulgaris.*
2. *Lepra alphoides.*
3. *Lepra nigricans.*

1186. The *first* and *second* do not deserve a distinct notice. The Lepra is generally seen to occupy the skin over the *olecranon* and *patella.*

1187. The *third* variety is attended by thinner scales; and, when these are removed, the part is frequently tender and apt to bleed. It is frequently associated with cachexia.

XX. PSORIASIS.

1188. Psoriasis differs from the Lepra chiefly in the irregular form and in the diffusion of the scaly patches, and in the

absence of its inflamed borders, depressed centres, and regular oval or circular forms. The subjacent surface is also more tender, more easily denuded, and more prone to become affected by fissures. Psoriasis has been divided into the following varieties:

1. *Psoriasis guttata.*
2. *Psoriasis diffusa.*
3. *Psoriasis gyrata.*
4. *Psoriasis inveterata.*
5. *Psoriasis localis.*

1189. These varieties, except the last, depend on the difference of *form* and *duration* of the disease. The Psoriasis *localis* affects—1, the under lip; 2, the wrists and fore-arm in *washerwomen;* 3, the palm of the hand, the eye-lids; 4, the back of the hand in *bakers;* 5, the prepuce; 6, the scrotum.

XXI. PITYRIASIS.

1190. This affection consists of irregular patches of thin, bran-like scales, which repeatedly exfoliate and recur, but never form crusts, or are accompanied with excoriations.

1191. Four varieties of Pityriasis have been described:

1. *Pityriasis capitis.*
2. *Pityriasis rubra.*
3. *Pityriasis versicolor.*
4. *Pityriasis nigra.*

1192. The *first* of these is the dandriff of infants.

1193. The *second* occurs in advanced life.

1194. The *third* is denoted by the variegated appearance of the cuticle.

1195. The *fourth* is seen in children born in India.

XXII. ICTHYOSIS.

1196. This disease consists in an indurated, horny condition of the skin. It is divided into two kinds:

1. *Icthyosis simplex.*
2. *Icthyosis cornea.*

CHAPTER IV.

THE DIAGNOSIS OF VARIOLOID DISEASES.

1197. I HAVE thought the subject of the present chapter of sufficient importance to be separated from that of Cutaneous Diseases generally. The question of the efficacy of Vaccination, and the question so ably agitated by Dr. Thomson, of the identity of modified Variola and Varicella, are of such moment in the practice of physic as to require every possible mode of illustration.

1198. I purpose, therefore, in this place, to describe the *true* Vaccine vesicle and its various *imperfect* forms; the several varieties of the Varicella; the most usual appearance of the modified Variola; and the variety of forms which the Variola assumes in those unprotected from its power.

ARRANGEMENT OF THE VARIOLOID DISEASES.

I. PERFECT VACCINIA.

II. IMPERFECT VACCINIA.

1. *The Vaccine Pustule.*
2. *Ulceration.*
3. *Irregular Vesicles.*

III. VARICELLA.

1. *Varicella lenticularis.*
2. *Varicella conoidalis.*
3. *Varicella globata.*

IV. Variola.

I. *In the Unprotected.*

1. *The mild vesicular.*
2. *The vesiculo-pustular.*

II. *In the Protected.*

Modified Variola.

1. PERFECT VACCINIA.

1199. Vaccinia, when perfect, is denoted by a semi-transparent, pearl-colored Vesicle, which, after the *ninth* day, is surrounded by a red areola, and afterwards terminates in a hard, dark-colored scab. The base is circular, or somewhat oval, with a diameter of about four lines, on the *tenth* day. Till the end of the *eighth* day, its upper surface is uneven, being considerably more elaborated at the margin than about the centre, and sometimes indented by one or two concentric furrows; but, on the *ninth* or *tenth* day, the surface becomes plane, and, in a very few instances, the central part is highest. The margin is turgid, firm, shining, and rounded, so as often to extend a little beyond the line of the base. This convex, wheel-shaped margin forms the criterion of a perfect Vesicle. The Vesicle consists internally of numerous little cells, filled with clear lymph, and communicating with each other. The areola which is formed round the vesicle is of an intense red color. Its diameter differs in different persons, from a quarter of an inch to two inches; and it is usually attended with considerable tumor and hardness of the adjoining cellular membrane.

1200. On the *eleventh* and *twelfth* day, as the areola declines, the surface of the vesicle becomes brown at the centre, and less clear at the margin. The cuticle then begins to separate, and the fluid in the cells gradually concretes into a hard rounded scab of a reddish brown color. This scab becomes at length black, contracted, and dry; but it is not detached till after the *twentieth* day from the inoculation. It leaves a permanent cicatrix about five lines in diameter, and a little depressed, the

surface being marked with very minute pits or indentations, denoting the number of cells of which the vesicles had been composed.*

II. IMPERFECT VACCINIA.

1. *The Vaccine Pustule.*
2. *Ulceration.*
3. *Irregular Vesicles.*

1201. I. *The History.* It has been ascertained that Vaccination is imperfect or insufficient—1. When the fluid employed has lost some of its properties. 2. When the persons inoculated are soon afterwards affected with any contagious or eruptive fever. 3. When they are affected at the same time with some Cutaneous Disorders, as Herpes, Psoriasis, Impetigo, Lichen, Porrigo; and perhaps Scabies and Prurigo.

1202. The Pustule or Ulceration may arise from the use of effete or altered virus, or from the presence of chronic Cutaneous eruptions. The Vesicle without an Areola arises when the patient has previously received the infection of Small-pox, or is affected with any other contagious disease. The other Vesicles arise from some of the causes enumerated, § 1200.

1203. II. *The Symptoms.* Imperfect Vaccination is denoted, in different instances, by the appearance of Pustules, Ulcerations, or Vesicles of an irregular form:

1204. 1. The Vaccine Pustule is conoidal; it increases rapidly from the *second* to the *fifth* or *sixth* day, when it is raised on a hard inflamed base, with a premature diffuse redness extending beyond it on the skin. It is usually broken before the end of the sixth day, and is soon after succeeded by an irregular yellowish brown scab. The redness disappears within a day or two, and the tumor gradually subsides. This pustule resembles the suppuration induced by the presence of a thorn; it contains a straw-colored opaque matter.

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* "The discovery of Vaccination, as a preventive of Smallpox, is the most important event which the History of Medicine can furnish," and "has conferred immortality on the name of JENNER."—*Willan.*

1205. 2. The Ulceration probably arises from the Vaccine Pustule, when it is rubbed or scratched off at an early period.

1206. 3. The Irregular Vesicles are of three kinds. 1. A single pearl-colored vesicle, set on a dark-red base, slightly elevated. It is larger and more globate than the Pustule; but it is much less than the genuine vesicle, its top is flattened, or sometimes a little depressed, but the margin is not rounded or prominent. The areola is usually diffuse, and of a dark rose-color. 2. A vesicle which appears cellular, like the genuine Vaccination, but somewhat smaller, more sessile, and having a sharp angulated edge. The areola is sometimes of a dilute scarlet color, radiated, and very extensive, as from the sting of a wasp; sometimes it is less extensive.—The areola appears round these vesicles on the *seventh* or *eighth* day after inoculation, and continues more or less vivid for three days, during which time the scab is completely formed; it is smaller and less regular than that which succeeds the genuine Vesicle, falls off sooner, and leaves a smaller cicatrix, which is sometimes angulated. 3. The third Irregular Vesicle is unattended with an areola.*

III. VARICELLA.

1. *Varicella lenticularis.*
2. *Varicella conoidalis.*
3. *Varicella globata.*

1207. I. *The History.* In Varicella the eruption appears *two* or *three* days after the commencement of fever, which continues sometimes to the third day after the appearance of the eruption.

1208. The eruption in Varicella usually commences on the

* When any deviation from the perfect and genuine Vaccine Vesicle arises, common prudence, as Dr. Jenner remarks, points out the necessity of reinoculation. Amongst the *improvements* in Vaccination, however, none is so important as the plan of Reinoculation in every case at the end of the fifth or beginning of the sixth day, suggested, as the test of Vaccination, by Mr. Bryce. In this case, when the first Inoculation is effective, both Vesicles arrive at maturity, and exhibit an areola, at the *same* time; the latter Vesicle proceeds more rapidly through its stages, and on the *ninth* or *tenth* day, is in an equal state of forwardness with the former, but more diminutive.

breast and back, appears next on the face and scalp, and, lastly, on the extremities. It is attended, especially in children, with tingling and itching, which leads them to scratch off the tops of the vesicles, so that the characteristics of the disease are often destroyed at an early period. The vesicles, thus broken and irritated, become inflamed and pustular, containing thick yellow matter. They continue three or four days, and finally leave pits. The eruption is usually fullest in the conoidal varicella. The vesicles are sometimes coherent, but rarely confluent.

1209. II. *The Symptoms.* 1. The Varicella *lenticularis*, or the Chicken-pox, exhibits, on the first day of eruption, small red protuberances, not exactly circular, and having a flat, shining surface, in the centre of which a minute vesicle is soon formed. This, on the second day, is filled with a whitish lymph, and then it somewhat resembles a miliary vesicle; but it is less prominent and tense, and less regularly circumscribed; its diameter is about the tenth of an inch. On the third day, the lymph becomes straw-colored. On the fourth, many of the vesicles are broken at their most prominent part; the rest begin to shrink, and are puckered at their edges. Few remain entire on the fifth day, but the orifices of several of the broken vesicles are closed or adhere to the skin, so as to confine a little opaque lymph within the puckered margins. On the sixth day, small, thin brown scabs are seen universally instead of the vesicles, which, on the seventh or eighth, become yellowish, and gradually dry from the circumference to the centre. On the ninth and tenth days, they fall off, leaving for some time, red marks on the skin, without depression. The eruption is generally first observed on the breast and neck; afterwards on the face and extremities. As fresh vesicles arise during two or three successive days, and go through the same stages as the first, the duration of the disease is sometimes longer than above stated.

1210. 2. The Varicella *conoidalis*, or Swine-pox, exhibits vesicles which rise suddenly, have a hard, inflamed border, and are, on the first day, acuminated, and contain a bright, transparent lymph. On the second, they are somewhat more

turgid, surrounded by a more extensive inflammation, and many of them contain straw-colored lymph. On the third day, the vesicles are shrivelled, and those which have been broken exhibit at the top slight gummy scabs, formed by the concretion of the exuding lymph; some of the shrivelled vesicles which remain entire, but have much surrounding inflammation, contain a purulent fluid, and such vesicles leave a durable cicatrix or pit. On the fourth day, thin, dark brown scabs appear, intermixed with others, which are rounded, yellowish, and semitransparent; they gradually dry and separate in four or five days. A fresh eruption of vesicles takes place on the second and third days; and, as each set has a similar course, the whole duration of the eruptive stage is six days; the last-formed scabs are separated on the eleventh or twelfth day.

1211. 3. In the Varicella *globata*, or Hives, the vesicles are large and orbicular, but their base is not exactly circular. There is a surrounding inflammation, and they contain a transparent lymph, which, on the second day of eruption, resembles milk-whey. On the third, the vesicles subside, and, as in the two former species, become puckered or shrivelled; they also appear yellowish, a small quantity of pus being mixed with the lymph. Some remain in this state till the following morning; but, before the conclusion of the fourth day, the cuticle separates, and thin, blackish scabs cover the bases of the vesicles. The scabs dry and fall off in four or five days. The eruption is usually completed in three days; but a few fresh vesicles sometimes appear on the fourth day; in which case, the eruptive stage occupies eight days.*

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* Dr. Heberden observes, "the principal marks by which the Chicken-pox may be distinguished from the Small-pox are, 1, The appearance, on the *second* or *third* day from the eruption, of the vesicles full of serum at the top of the pock. The pustules which are fullest of the yellow liquor resemble what the genuine Small-pox are on the *fifth* or *sixth* day, especially when there happens to be a larger space than usual occupied by the extravasated serum. It happens to most of them either on the first day that the little vesicle arises, or on the day after, that its tender cuticle is burst; a thin scab is then formed at the top of the pock, and the swelling of the other part abates, without its ever being turned into pus, as it is in the Small-pox.

IV. VARIOLA.*

I. *In the Unprotected.*

1212. Of Variola, as it occurs in the *unprotected*, Dr. Thomson describes two varieties, besides those termed the *distinct* and the *confluent*, §§ 152, 160, of which I propose to give the characters in this place. They are

1. *The mild vesicular.*
2. *The vesiculo-pustular.*

1213. I. *The mild vesicular.* Dr. Thomson observes, in

2, Slight scabs over the Chicken-pox on the *fifth* day; at which time the Small-pox are not at the height of their suppuration. 3, The inflammation round the Chicken-pox is very small, and the contents of them do not seem to be owing to suppuration, as in the Small-pox, but rather to what is extravasated immediately under the cuticle by the serous vessels of the skin, as in a common blister. No wonder, therefore, that this liquor appears so soon as on the *second* day, and that, upon the cuticle being broken, it is presently succeeded by a thin scab. Hence, too, as the true skin is so little affected, no mark or scar is likely to be left."

* Dr. Willan remarks, with regard to the Diagnosis between Varicella and Variola, "that Variolous pustules, on the *first* and *second* days of their eruption, are small, hard, globular, red, and painful. The sensation of them to the touch on passing the finger over them, is similar to that which one might conceive to be excited by the pressure of small round seeds under the cuticle. In the Varicella, almost every vesicle has, on the *first* day, a hard, inflamed margin; but the sensation communicated to the finger in this case is like that from a round seed flattened by pressure. On the *third* and *fourth* day, the shrivelled or wrinkled state of the vesicles which remain entire, and the radiating furrows of others whose ruptured apices have been closed by a slight incrustation, fully characterize the Varicella, and distinguish its eruption from the firm and durable pustules of Small-pox. As the vesicles of the Chicken-pox appear in succession during three or four days, a partial examination will not always discover the characteristic here specified. In order to form a proper judgment, practitioners should inspect the eruption on the face, breast, and limbs, attending more especially to the places in which it was first observed. If the whole eruption be viewed on the *fifth* or *sixth* day, *every* gradation of the progress of the vesicles will appear at the *same* time. This circumstance may be added to the Diagnostics of Varicella, as it cannot take place in the slow and *regular* progress of the Small-pox. The *globated* vesicles, not having any resemblance to variolous pustules, distinguish the varicella from Small-pox, whenever they appear; for it is to be remembered that these large vesicles are occasionally intermixed both with the lenticular and the conoidal vesicles of the Chicken-pox."

regard to this form of variola, "The eruption has been almost always papular in its origin. In a small number of cases, in which the eruption has been scanty, the papulæ have become vesicular on the first or second day, have continued such nearly till their disappearance, which has usually happened before the end of the fifth or sixth day, and have left behind them only a slight roughness, or small thin scales upon the skin. The cases to which I allude have occurred in situations in which confluent and malignant small-pox existed, and to the contagion of which they could be distinctly traced. Had it not been for this circumstance, I should never have had any doubt of these cases having been examples of genuine chicken-pox. This variety might be termed *mild vesicular* small-pox."

1214. II. *The vesiculo-pustular.* Dr. Thomson observes, "In other instances, in which the papulæ have from the first appeared vesicular, the vesicles, after continuing pellucid for two or more days, have become filled with a whitish fluid, sometimes resembling milk, and sometimes pus, which dried into small crusts or scabs. It was impossible, during the vesicular state of the disease in these cases, to say whether the vesicles would become pustules, whether, when they became pustules, they would continue prominent, or become depressed in their centres; and whether they would decay by the sixth or by the ninth day. In this variety, though the disease might have been regarded as chicken-pox in its commencement, it was impossible, by any characters with which I am acquainted, to have distinguished it from small-pox, in its termination. This variety may be termed *vesiculo-pustular* small-pox."

II. *In the Protected.*

1215. In the *Modified Variola*, "the fever which precedes the eruption is similar in form, and equal in degree, to the fever usually attending the inoculated Small-pox; and the eruption is either papuliform, or tuberculated, without much surrounding inflammation; it coincides in these leading circumstances with the disease produced, when the vaccine and variolous matter are inoculated nearly together, and restrain

the operation of each other on the skin, or when a person exposed to variolous contagion has been inoculated with vaccine lymph early enough to mitigate the eruption of the Small-pox, but not wholly to supersede it." "This variolous eruption consists of hard, distinct, shining pustules, which have but little inflammation surrounding them, and which seldom maturate. Some of these pustules are tuberculated. The small quantity of matter contained in them soon disappears, leaving the cuticle which confined it horny and elevated for many days afterward. The rest of the eruption is minute and papulous, not suppurating, but desquamating."*

1216. Dr. Thomson, after having shown that Variola sometimes assumes, in the *unprotected*, *Varicelloid* forms, §§ 1212, 1213, adds that, in other instances, it may assume the *distinct* or *confluent* forms, *in those protected by vaccination or previous small-pox*, although far more rarely.

1217. Dr. Thomson concludes that it is probable that Varicella, and the Secondary or the Modified Variola, are the same disease, arising from the same contagion, and that, previously to the discovery of the cow-pock, secondary small-pox, being a disease frequent in its occurrence, must have stood in nearly the same relation to the primary small-pox, that modified small-pox now does to cow-pock.†

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* Willan on Vaccine Inoculation, §§ IV and V.

† See the interesting and valuable work on Varioloid Diseases.

CHAPTER V.

THE DIAGNOSIS OF SOME DISEASES SUBJACENT TO THE SKIN.

1218. I PROPOSE, in the present chapter, to sketch the diagnosis of those diseases which are seated deeper than the skin. They will present new instances of affections belonging to the province of medical surgery rather than that of physic.

1219. These diseases occur in the course of the limbs, in the neck, in the groin, and in the lumbar and iliac regions. The diseases of each of these parts form interesting subjects for diagnosis, as the reader will perceive on casting his eye over the subjoined arrangement.

ARRANGEMENT OF DISEASES SEATED BENEATH THE SKIN.

I. OF THE LIMBS.

I. PHLEBITIS.

II. INFLAMMATION OF THE ABSORBENTS.

II. OF THE NECK.

I. INFLAMMATION OF THE LYMPHATIC GLANDS.

II. CYNANCHE PAROTIDEA.

III. BRONCHOCELE.

IV. TUMORS.

V. ANEURYSM.

III. OF THE GROIN.

I. Inflamed Glands.
II. Hernia.
III. The Pointing of Lumbar Abscess.
IV. Tumors.
V. Aneurysm.

IV. OF THE LUMBAR AND ILIAC REGIONS.

I. Disease of the Spine.
II. Aneurysm of the Aorta.
III. Lumbar Abscess.
IV. Disease of the Kidney.
V. Disease of the Hip-joint.

I. DISEASES OF THE LIMBS.

1. PHLEBITIS.

1220. I. *The History.* Inflammation of the vein frequently occurs from an accident or surgical operation: it is apt to follow venæsection, the ligature of a vein, &c. and I have known one instance occasioned by the bite of a horse on the finger.

1221. II. *The Symptoms.* Phlebitis is distinguished by a hard, cord-like, tender line, pursuing the course of a vein or veins, from an incision or wound. It is

Suppurative, and Diffused;

and attended by *typhoid fever*, and abscesses; or

Suppurative, and Adhesive,

and accompanied by distinct abscesses in the course of the inflamed vein, with protracted fever. See §§ 1064, 1067.

II. INFLAMMATION OF THE LYMPHATICS.

1222. I. *The History.* This disease usually arises from a wound or ulcer.

1223. *The Symptoms* consist in a flat line of redness and tenderness, pursuing its course from this wound or ulcer along the lymphatic vessels, and frequently attaining the lymphatic glands,—in the neck, in the axilla, or in the groin,—when the scalp, the hand or arm, the leg or foot, or the penis, is severally affected. The redness and tenderness may subside; or numerous successive abscesses may form in the course of the lymphatic vessels or glands.

II. DISEASES OF THE NECK.

I. INFLAMMATION OF THE LYMPHATIC GLANDS.

1224. I. *The History.* This affection is generally slow in its progress, and allied to struma or connected with general disorder. It is also a frequent complication of porrigo.

1225. II. *The Symptoms.* The tumor obviously consists of a single lymphatic gland, or of a chain or cluster of glands; it is, of course, seated in the situation of these glands, and thus distinguished from the disease to be next mentioned; it frequently passes into slow suppuration.

II. CYNANCHE PAROTIDEA.

1226. I. *The History.* The Cynanche Parotidea, or mumps, is a contagious disease, and may generally be traced to exposure to patients similarly affected.

1227. II. *The Symptoms.* It is distinguished by occupying the position of one, or more, of the parotid or submaxillary glands. It is soft, puffy, slightly tender, and not disposed to suppurate. It is subject to metastasis, to the *testis*

in the male, and to the *mamma* in the female subject. It is attended by febrile symptoms.

III. BRONCHOCELE.

1228. I. *The History.* This singular affection is endemic in hilly countries; in Switzerland it is termed the goître, and is apt to be associated with cretinism.

1229. II. *The Symptoms.* Bronchocele is an enlargement of the thyroid gland; its situation will, therefore, be well known to many students of anatomy; it is frequently unequally developed on the two sides of the thyroid cartilage; it is soft and free from tenderness; and it is moved upwards in deglutition.

1230. By degrees it may increase in magnitude so as to impede the respiration; and it may become extremely hard and even ossified.

1231. III. *The Effect of Remedies.* Early in the disease, the iodine seems to be almost specific.

IV. TUMORS.

1232. A tumor situated in the neck can only be identified by contrasting its form, origin, and progress, with those of the affections just described, and by comparing them with those of the various kinds of morbid growths. In this manner, too, is such a tumor to be distinguished from

V. ANEURYSM,

which is further distinguished by its peculiar pulsation, and the impulse felt and the sound heard under the ear or stethoscope.

III. DISEASES OF THE GROIN.

I. INFLAMED GLANDS.

1233. This disease is distinguished by its tenderness, and

by presenting to the finger the sensation of several distinct glands forming the general tumor. There are frequently redness of the skin and an obvious disposition to suppurate.

II. INGUINAL HERNIA.

1234. This disease, when free from strangulation, consists of an individual tumor, augmented on coughing, reducible by pressure in the recumbent posture, and unattended by tenderness, or pain, or other symptoms.

1235. When strangulated, it is attended by its peculiar symptoms of sickness, vomiting, and intestinal obstruction and pain; and the local tumor, when examined, is usually found to be tender under pressure.

III. LUMBAR ABSCESS.

1236. When it points in the groin, is attended by phenomena precisely similar to those of hernia when free from strangulation. These two cases are distinguished by *the history*, lumbar abscess being preceded by its peculiar symptoms. They are also distinguished by the state of the general health, which, in lumbar abscess, is greatly impaired. The stethoscope would also probably assist the diagnosis.

IV. TUMORS and
V. ANEURYSM

1237. Are to be distinguished by their appropriate course and symptoms, which need not be repeated in this place.

IV. DISEASES OF THE LUMBAR AND ILIAC REGIONS.

I. DISEASE OF THE SPINE.

1238. This disease, which is usually of the most insidious character, is detected by careful examination. Pain and tenderness in the course of the spine, followed by spasmodic or

paralytic symptoms, are the diagnostic marks of this terrific disease. The general health also fails, and there are debility and emaciation. In the case of caries, redness and tumor and augmented pain and tenderness supervene.

II. ANEURYSM OF THE AORTA.

1239. In cases of pain and tenderness in the region of the spine, the ear or the stethoscope will occasionally detect the pulsation of an aortic aneurysm. In all such cases, this mode of examination should, therefore, be adopted. See § 614—620.

III. RHEUMATISM; LUMBAGO.

1240. This affection is usually sudden in its attack, attended with greatly aggravated pain on throwing the lumbar muscles into action, and frequently with pain in the joints or limbs, and unattended by the symptoms peculiar to the other diseases of this section.

IV. LUMBAR OR ILIAC ABSCESS.

1241. I. *The History.* This affection may sometimes be traced to a blow or strain, or to exposure to damp and cold. It is exceedingly insidious, and frequently undetected until it begins to point externally.

1242. II. *The Symptoms* are obscure pain of the back, with little tenderness, but with a peculiar lameness of one leg, the thigh being with difficulty flexed upon the abdomen or rotated inwards. There is some degree of hectic, debility, and emaciation; in the course of time, a soft tumor appears in the groin, near the anus, or in the back, &c. which becomes tense on coughing, and fluctuates under the finger. This disease is frequently complicated with

1. *Caries of the Spine, or*
2. *Tuberculous Disease.*

It is necessary to distinguish it from

V. DISEASE OF THE KIDNEY,

1243. The diagnostic marks of which are given §§ 202, &c. and from

VI. DISEASE OF THE HIP,

1244. The diagnosis of which is to be found in works treating professedly of surgery.

CHAPTER VI.

THE DIAGNOSIS OF PAINFUL, SPASMODIC, AND PARALYTIC DISEASES.

1245. The subject with which I propose to terminate this volume is one of great interest, as involving the *topical* Painful, Spasmodic, and painful Affections. They may be arranged in the following order:

ARRANGEMENT OF THE PAINFUL, SPASMODIC, AND PARALYTIC DISEASES.

I. THE PAINFUL DISEASES.

I. OF THE FACE.

I. Odontalgia.
II. Rheumatism.
III. Face Ague.
IV. Tic Douloureux.
V. Inflamed Antrum Maxillare.

II. OF THE LIMBS.

I. Rheumatic.
II. Syphilitic.
III. Cachectic, Pains.
IV. Sympathetic Pains in Carcinoma.
V. Tic Douloureux.
VI. Painful Subcutaneous Tubercle.

II. THE SPASMODIC AFFECTIONS.

I. OF THE FACE.

I. Trismus.
II. Trismus Hystericus.
III. Permanent Spasm of the Face.
IV. Tics, or Spasmodic Affections of various Muscles.
V. Chorea; Tremor; Stammering.
VI. Strabismus.
VII. Wry-neck.

II. OF THE LIMBS.

I. Cramps.
II. Hysteric Spasms of the Hands, Feet, etc.

III. THE PARALYTIC AFFECTIONS.

I. OF THE FACE.

I. Cerebral Paralysis.
II. Paralysis from Affection of the Fifth Pair of Nerves.
III. Paralysis from Affection of the Portio Dura of the Seventh.

II. OF THE LIMBS.

I. Paralysis from Colica Pictonum.
II. Wasting of the Muscles of the Shoulder.
III. Paralysis from
1. *Epilepsy*,
2. *Hysteria*,
3. *Rheumatism*, *&c.*

I. THE PAINFUL DISEASES.

I. OF THE FACE.

I. ODONTALGIA.

1246. I. *The History.* Odontalgia is apt to return in paroxysms; it is frequently distinctly traceable to exposure to damp or cold, and to derangement of the stomach; there is a permanent cause in decay or other disease of a tooth or of teeth.

1247. II. *The Symptoms.* This pain is distinguished by being traceable, by examination or pressure, to one or more teeth. It is attended by tumefaction of the cheek, and frequently by abscess of the gum.

II. RHEUMATISM.

1248. I. *The History.* Rheumatic pain of the face is usually referrible to exposure to damp or cold, and associated with other rheumatic affections.

1249. II. *The Symptoms.* It is not referrible to an individual tooth, or even to several teeth: it is unattended by much tumefaction, and there is no disposition to suppuration. It is apt to spread along the fibres of the muscles or tendons of the face, temples, or occiput, and to be aggravated on calling them into action. It is usually relieved by warmth.

III. NEURALGIA, OR FACE-AGUE.

1250. I. *The History.* This singular disease is apt to occur and recur in spring or autumn, from exposure to the north-east wind: it prevails in damp or marshy districts, and it is frequently observed to accompany the epidemic influenza. It frequently exists as a

Complication of Intermittent.

1251. II. *The Symptoms.* The true Ague occupies the

brow, the temple, the forehead, the occiput, &c.: it recurs in paroxysms frequently of considerable regularity; it is often excruciating, occasionally inducing delirium, and, still more frequently, redness of the conjunctiva. It may recur once or twice in the course of the day.

1252. III. *The Effects of Remedies.* This pain is almost certainly removed by the quinine or the arsenic.

IV. TIC DOULOUREUX.

1253. I. *The History.* The paroxysms of this formidable disease are sudden, irregular in their occurrence, frequently more or less transient or momentary, induced by the act of eating, or talking, or by the contact of external bodies with the acutely sentient extremities of the nerves.

1254. II. *The Symptoms.* It is distinguished by that which the term *tic* means originally; viz. by a sudden contraction of several muscles, with distortion of the face. Its seat is various —in different parts of the face, of the limbs, and of other parts of the surface of the body.

V. INFLAMMATION OF THE ANTRUM MAXILLARE.

1255. *The History and Symptoms.* This disease is distinguished by its gradually aggravated pain, its steady and continuous character, and its particular seat. It is eventually attended by external tumor and redness. It is usually relieved by the extraction of a tooth and the puncture of the antrum.

II. OF THE LIMBS.

I. RHEUMATIC,

II. SYPHILITIC,

III. CACHECTIC, AND

IV. CANCEROUS PAINS.

1256. These various pains are distinguished by the *History* and the *Symptoms*. To avoid repetition, the reader is requested to turn to §§ 298, 988, 991, 992, 323.

V. TIC DOULOUREUX.

1257. This has been just noticed, § 1253. It is again mentioned in this place, in order that it may be duly contrasted with an interesting affection noticed by Mr. Wood* and by myself† under the designation of the

VI. SUBCUTANEOUS TUBERCLE.

1258. This disease is attended with most acute pain, proceeding from one point, often extending along the course of the nerves, occurring in paroxysms, which take place spontaneously, or are occasioned by friction or other slight injury of the part, and which frequently disturb the night's repose. The case is distinguished by an examination of the part affected, when a small body, of the magnitude of about half a small pea, is felt under the integuments: this part is generally tender to the touch, especially during the paroxysm; and an acute pain is induced, and is extended along the nerves, by pressure.

II. THE SPASMODIC AFFECTIONS.

I. OF THE FACE.

I. II. TRISMUS.

1259. Trismus is frequently the first symptom in *Tetanus*, §§ 275, 280; and it is, frequently a form of Hysteria, § 246. It is, in both instances, distinguished by the *History* and concomitant *Symptoms*.

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* Edinb. Med. Journ. † Ibid.

III. PERMANENT SPASM OF THE FACE.

1260. I. *The History.* I do not think this disease has been described. It is induced by exposure to cold. It is readily distinguished from

PARALYSIS,

which may result from the same cause,* by a careful examination. It is only necessary for me to warn my reader that such forms of disease exist.

1261. II. *The Symptoms.* In the *spasm*, contraction, in the *paralysis*, relaxation, of the muscles, occur *on the affected side.*

IV. TICS.

1262. There are various forms of *Tic* observed in the face, especially in the eye-lid and in the cheek. The muscles are rapidly, and then perhaps spasmodically, contracted. The nature of the affection is very obscure. It would, however, appear to be related to

V. CHOREA; TREMOR; AND STAMMERING.

and to some forms of

VI. STRABISMUS.

1263. This *class* of diseases have their origin variously:

1. *In the Stomach, or*
2. *In the Brain itself.*

VII. THE WRY-NECK.

1264. This disease usually consists in spasmodic contraction of one of the sterno-mastoideus muscles; the head is drawn, of course, towards the opposite side. It is generally the result of exposure to cold.

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* Trans. Col. of Phys. vol. v, p. 96.

II. OF THE LIMBS.

I. CRAMPS.

1265. This affection is chiefly seated in the sole of the foot, and calf of the leg. It occurs from the undue contraction of the muscles, or it is a symptom of derangement of the digestion, and of *diarrhœa*, *cholera*, &c.

II. HYSTERIC SPASMS

are frequently permanent, and distort the hands and feet. They are distinguished by the *History* and *Symptoms* from other forms of cramps or spasms.

II. THE PARALYTIC AFFECTIONS.

I. OF THE FACE.

I. CEREBRAL PARALYSIS.

1266. In this case the face is frequently accurately divided by the mesial plane, the muscular power and sensibility being impaired on one side and perfect on the other: the eye-brow and the eye-lid of the affected side, may fall, the nose, and especially the mouth and the tongue, may be drawn to the opposite side—an effect rendered still more obvious on any muscular effort; the finger passed along the surface of the face, distinctly traces the paralytic boundary; the articulation and the deglutition are frequently impaired.*

II. PARALYSIS FROM AFFECTION OF THE FIFTH PAIR OF NERVES.

1267. For a knowledge of this disease we are indebted, first,

* Cerebral Paralysis denotes, as I have stated at length, § 402, a disease of the *opposite side* of the brain; and when affecting the anterior or posterior extremities, the *opposite portion* of that organ, §§ 404, 405. All this may be conceived and remembered by bearing in mind that the facts of pathology seem to indicate a *double crossing* of the cerebral fibres, from one side to the other, and from before backwards, and *vice versâ*.

to the experiments of M. Majendie, and, secondly, to the observations of M. Serres.

1268. *The Symptoms* of this affection are, redness of the conjunctiva, insensibility of the cornea, of the nostrils, and of the tongue, *on one side;* dulness of hearing and a diseased state of the gums, similar to that observed in scorbutus.*

III. PARALYSIS FROM AFFECTION OF THE PORTIO DURA.

1269. For the detection and discrimination of this form of paralysis, we are indebted to the splendid discoveries of Sir Charles Bell.

1270. This paralysis is distinguished by a permanently open state of the eyelids and loss of power in the muscles of expression, whilst the voluntary motions and the sensibility remain. A tumor or injury very often exists in the course of the nerve under the ear, ascertainable on examination.

II. OF THE LIMBS.

I. PARALYSIS IN THE COLICA PICTONUM.

1271. I need only remind my reader of the existence of this affection, and refer him to §§ 680, &c.

II. WASTING OF THE DELTOID.

1272. In this case, the outline of the scapula, the acromion, and the clavicle, is more marked and more prominent than natural, and in the affected than the unaffected side. The muscles of the arm also shrink. The shoulder falls a little; the muscular power of the arm is much impaired; and the contraction of the muscles is attended with less swell than

* In one case observed by M. Serres, the right eye and the right nostril were insensible, the left sensitive, the gums scorbutic. On examination, the origin of the fifth pair, on the right side of the tuber annulare, was found diseased. See Anatomie Comparée du Cerveau, t. ii, pp. 67—87.

usual: but all the motions of the arm and shoulder, if assisted, are complete.*

III. PARALYSIS FROM

1. *Epilepsy*,
2. *Hysteria*,
3. *Rheumatism*, &c.

1273. I have but to remind my reader of the occurrence of these forms of paralytic affection, and to direct his attention to those parts of this work which treat of the original diseases. *The History* determines the diagnosis.

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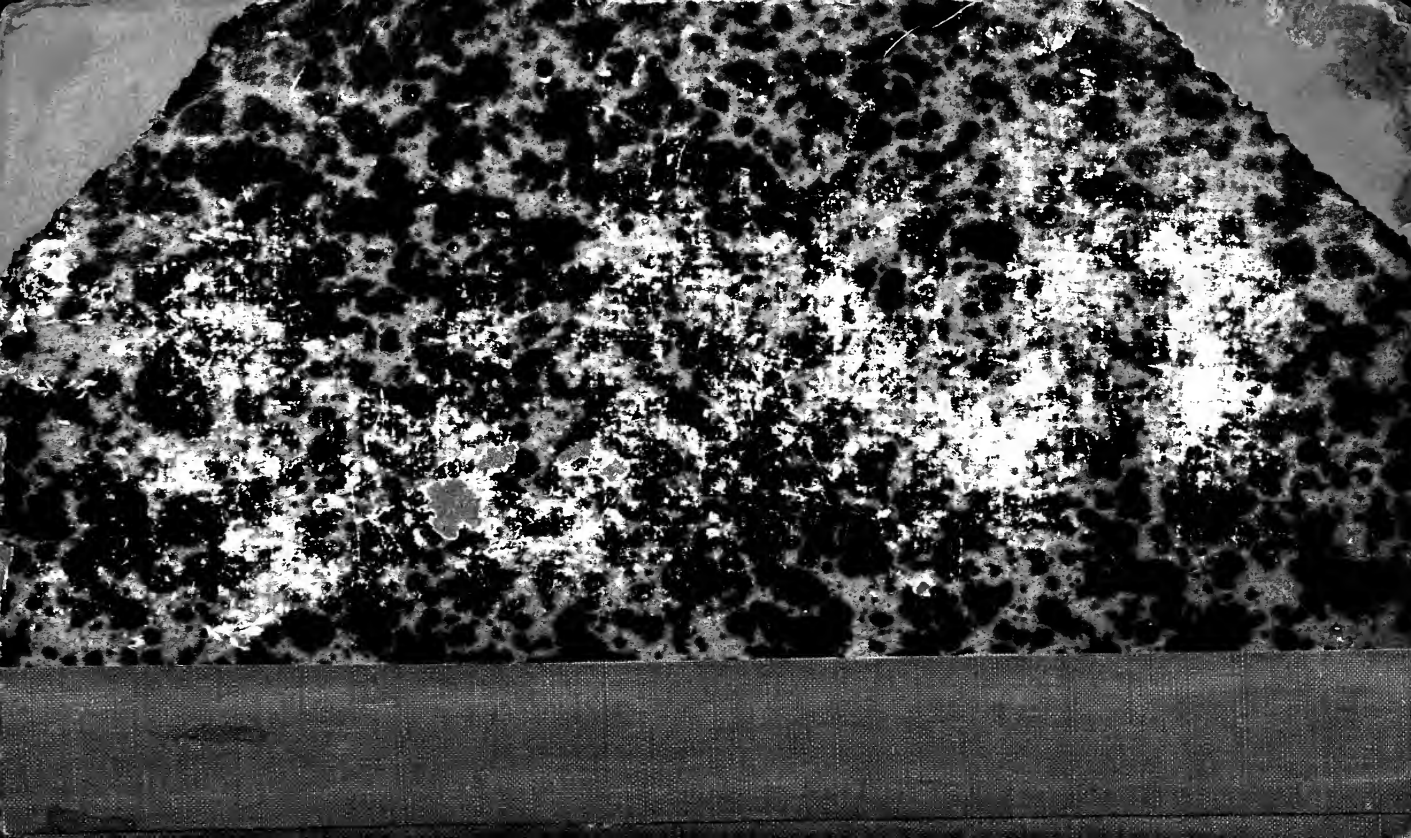
* The nature of this affection, of which I have seen one marked example, is very obscure. In the case to which I allude it was supposed to be of a syphilitic nature; but the patient had also suffered from rheumatism. This disease had escaped observation until I noticed it in the former edition of this work: it has recently been noticed by the late Dr. Darwall.